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ABSTRACT

The annual report contains a narrative description of New York State's accomplishments in terms of the objectives of the fiscal year 1974 State Plan for the Administration of Occupational Education under the Vocational Education Amendments of 1968, as well as important statistical information concerning the status of occupational education in the State during the fiscal year in terms of the numbers and characteristics of students served. All information concerning accomplishments of State plan objectives served: elementary and early secondary, secondary, post-secondary, adult, and multilevel. The secondary, post-secondary, and adult sections are further subdivided by the three population groups served: general, disadvantaged, and handicapped. Throughout the report, descriptions are included of specific programs and services which exemplify ways in which resources are utilized to accomplish objectives. Additional descriptions of specific programs and services are included in the section entitled "Highlights of Exceptional or Model Programs." (Author/MW)

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The University of the State of New York
THE STATE EDUCATION DEPARTMENT
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Albany, New York 12230

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THE UNIVERSITY OF THE STATE OF NEW YORK
The State Education Department
Office of Occupational and Continuing Education
Albany, New York

NEW YORK STATE
ANNUAL REPORT FOR OCCUPATIONAL EDUCATION

July 1, 1973 - June 30, 1974

INTRODUCTION

The New York State Annual Report for Occupational Education, Fiscal Year 1974, contains a narrative description of the State's accomplishments in terms of the objectives of the fiscal year 1974 State Plan for the Administration of Occupational Education under the Vocational Education Amendments of 1968, as well as important statistical information concerning the status of occupational education in the State during the fiscal year.

All information concerning accomplishments of State Plan objectives is organized into five major sections, according to the instructional level of persons served: ELEMENTARY AND EARLY SECONDARY, SECONDARY, POST-SECONDARY, ADULT, and MULTILEVEL. The SECONDARY, POST-SECONDARY, and ADULT sections are further subdivided into three population groups served: GENERAL, DISADVANTAGED, and HANDICAPPED. Throughout the report, descriptions are included of specific programs and services which exemplify ways in which resources were utilized to accomplish objectives. Additional descriptions of specific programs and services are included in the section entitled HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS.

Information concerning accomplishments of objectives for the narrative portion of the report was compiled from: statistical reporting data; annual reports furnished by directors of occupational education in the major cities and BOCES area centers; materials from public 2-year colleges, urban centers, and the Bureau of Two-Year College Programs in the State Education Department; and from records of various State Education Department units with responsibility for occupational education.

The ELEMENTARY AND EARLY SECONDARY section describes progress in developing and implementing career education activities, to familiarize all students with the work performed in our society, and to provide them with a foundation of knowledge and experience to assist them in educational and occupational decisionmaking.

Among the wide variety of accomplishments described in the SECONDARY section are: the addition and expansion of occupational programs to meet identified manpower needs; construction of new facilities for three BOCES centers and the purchasing of facilities for one center; development and expansion of occupational information, guidance, and placement services, including the employment of placement and followup coordinators at a number of BOCES and major cities; further development of cooperative work experience and work-study opportunities, with emphasis on the urban areas of the State; increased coordination and articulation of secondary and post-secondary programs; expansion of distributive and office education programs in the local schools; further development

of programs and services for disadvantaged students, such as flexible scheduling and programming, and multioccupational curriculums designed to create and maintain student interest; and expanded services for handicapped students, including renewed emphasis on mainstreaming--serving the handicapped in regular programs supplemented by special services.

At the POST-SECONDARY level, significant accomplishments include: development of 27 new occupational curriculums, and expansion of 70 existing curriculums; coordination of guidance and counseling functions with developmental skills programs in reading and mathematics, to assist students in successfully completing occupational programs; development and implementation of new individualized instructional techniques and materials to assist students in succeeding; initiation and expansion of articulation efforts between 2-year public colleges and secondary agencies; further development of cooperative work experience as an integral part of occupational curriculums; and development of programs and services for handicapped occupational education students.

Major accomplishments described in the ADULT section include: continued efforts to provide flexible scheduling arrangements which allow adults to enroll in day or evening programs with a minimum of conflict with their other responsibilities; addition of programs to upgrade the skills of employed adults; development of programs to meet specific needs of local businesses or industries; further development of related instruction programs for apprentices in cooperation with local unions; more intensive counseling and diagnostic testing of adults, out-of-school youth, and high school dropouts; introduction of modular curriculum design in adult programs; cooperative arrangements between BOCES and 2-year public colleges in serving adults; implementation of several regional inservice education projects for teachers of adult occupational education; and progress in developing organizational structures for comprehensive continuing education programs, through the employment of one additional full-time adult occupational coordinator, and continued support for coordinators employed in previous fiscal years, and continued development of administrative units for adult occupational education in two large agencies.

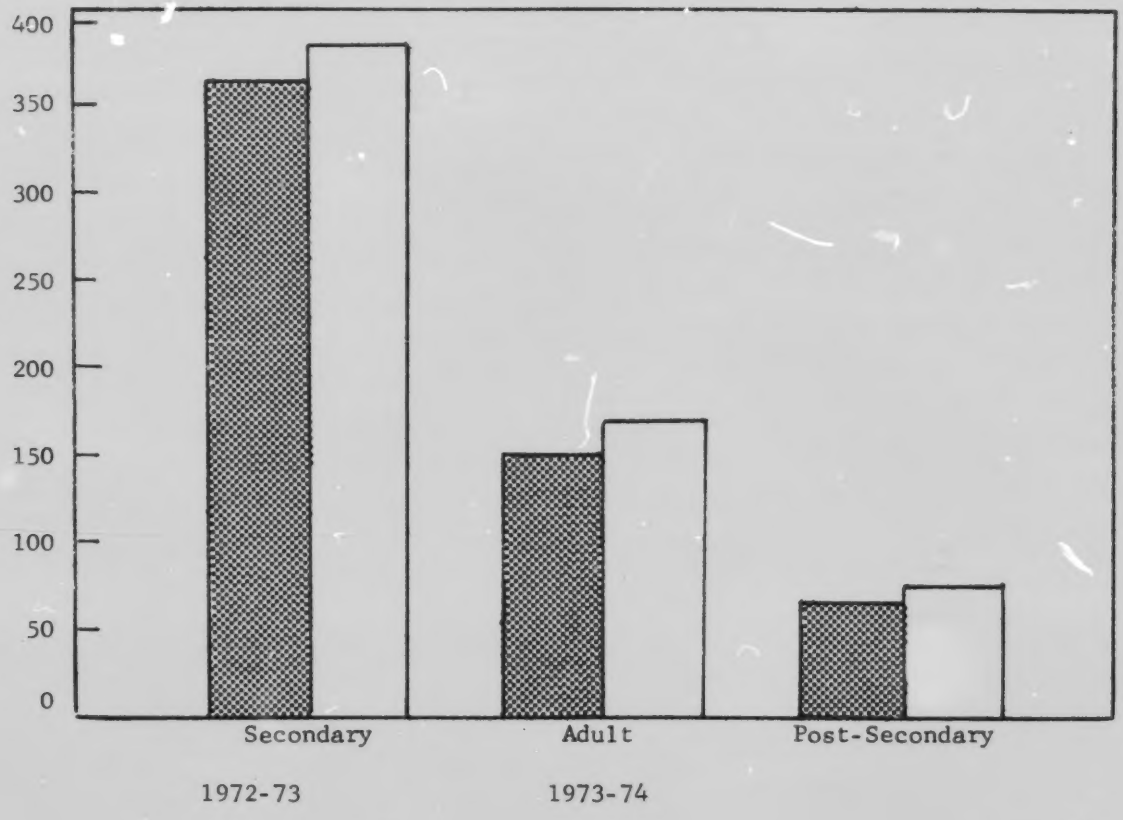
The MULTILEVEL section describes accomplishments in terms of objectives which have bearing on two or more educational levels. These objectives concern administration, research, planning, evaluation, exemplary projects, teacher education, and curriculum development. Some of the accomplishments described in this section are: continuation of the development of a coordinated program planning, budgeting, and evaluation system for occupational education; continued operation of two Research and Development Institutes where special research studies are conducted, and consultive services provided which relate to needed change in the field of occupational education; employment of regional industry-education coordinators to improve two-way communication between educators and employer and employee groups; and development of an improved arrangement for curriculum development, through the employment of regional curriculum coordinators in many areas of the State.

This introduction has summarized highlights of the narrative portions of the fiscal year 1974 Annual Report. The section which follows provides a statistical overview of the State's program of occupational education during 1973-74, in terms of the numbers and characteristics of students served.

STATISTICAL HIGHLIGHTS OF OCCUPATIONAL EDUCATION IN NEW YORK STATE 1973-74

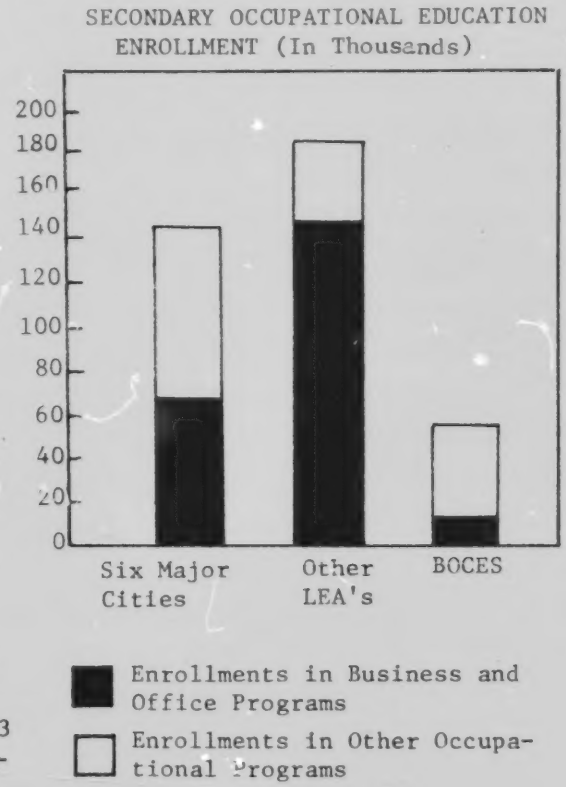
During the 1973-74 school year, more than 618,000 students were served in secondary, post-secondary, and adult occupational education programs in the public local educational agencies (LEA's), in the area occupational education centers operated by the Boards of Cooperative Educational Services (BOCES), and at the public 2-year colleges and educational opportunity centers throughout New York State. This school year's occupational education enrollment surpassed the previous year's total occupational education enrollment by more than 48,000 students, a growth rate in excess of 8 percent.

COMPARISON OF 1972-73 AND 1973-74 OCCUPATIONAL EDUCATION ENROLLMENTS



A significant factor in this continued growth was the availability of Federal assistance under the Vocational Education Amendments of 1968 (VEA). During fiscal year 1974 New York State expended $35,534,765 of VEA funds. This represented less than 10 percent of the total Federal, State, and local expenditures for occupational education in New York State during the fiscal year.

Secondary occupational education programs served 386,839 students. Thirty-eight percent of the occupational education students at the secondary level were enrolled in the six major cities of the State--New York City, Buffalo, Rochester, Syracuse, Yonkers, and Albany. Outside of the major cities, 184,834, or 48 percent of the total secondary occupational education enrollees were served in programs operated by local educational agencies, and 56,486, or 14 percent of the total secondary occupational education enrollees, were served in programs operated by the BOCES. It is significant to note that 77 percent of the LEA occupational enrollment was in business and office education programs, which are a standard part of the curriculum in nearly every secondary school of the State. Excluding business and office education, 55 percent of the occupational education enrollees outside the six major cities were served by BOCES. Secondary occupational education enrollment at BOCES increased by nearly 12 percent from 1973 to 1974, reflecting the trend toward sharing of resources and services among school districts which find it educationally and/or economically unfeasible to offer a comprehensive occupational education program.



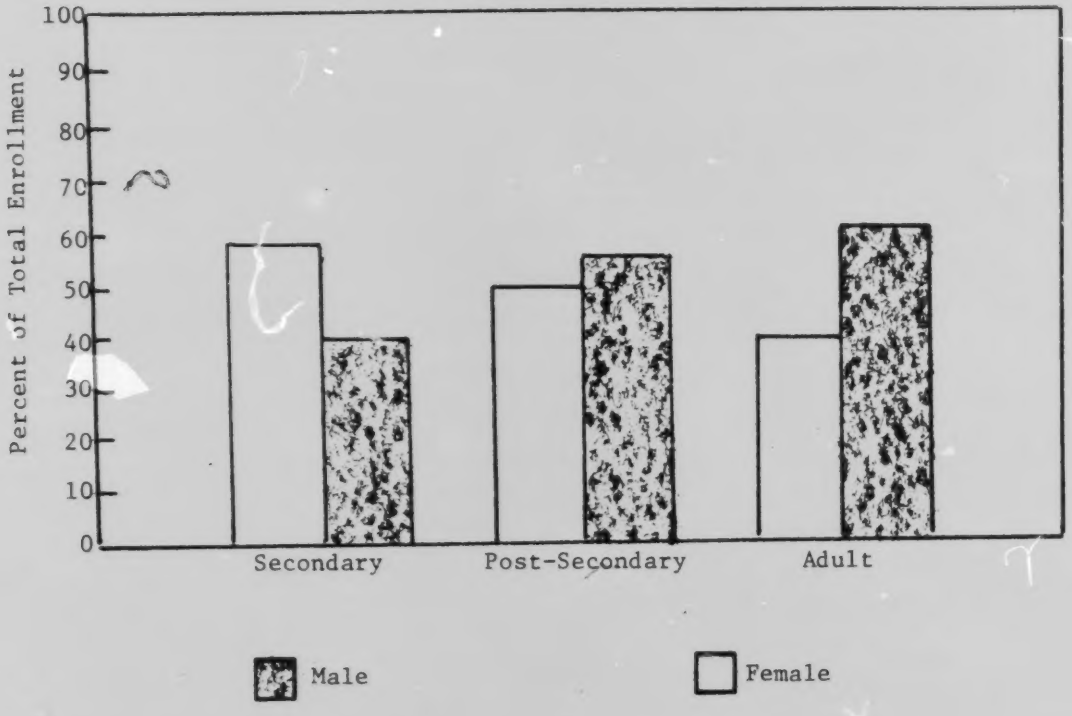
At the same time, there were 157,104 adults served in occupational education programs in the recently concluded school year. Of the 113,573 adults enrolled in occupational education programs at the secondary agencies, the six major cities accounted for nearly 61 percent of the total adult enrollment, more than 71 percent of the adult supplementary students, and greater than 78 percent of the adults receiving related instruction as apprentices. Nonetheless, BOCES increased its relative share of the total number of adults enrolled in occupational programs at secondary agencies to 26 percent, while other local educational agencies served the remaining 13 percent. The adults served outside of the secondary agencies included 40,070 persons enrolled in part-time degree and nondegree occupational programs at public 2-year colleges, as well as an additional 3,462 adults enrolled in part-time and full-time nondegree occupational programs at the educational opportunity centers.

Community colleges and 2-year agricultural and technical colleges served 74,197 students in full-time degree and nondegree occupational programs. This is nearly a 15 percent increase in enrollment over the previous school year, with almost 97 percent of these occupational education enrollees in degree programs.

The distribution of enrollments among occupational program areas reveals a significant concentration in business and office education at all levels of study. Fifty-six percent of the total secondary occupational enrollment was in business and office education. Trade, industrial, and service programs accounted for an additional 27 percent, while the remaining 17 percent were distributed among the other five program areas--distribution, technical, health, agriculture, and home economics. Adult enrollees were concentrated in the same two program areas. Forty-five percent of all adult occupational education students were enrolled in trade, industrial, and service programs and 33 percent in business and office programs. Post-secondary students were more evenly distributed among the seven program areas, although business and office education accounted for almost one-third of all occupational enrollees at that level.

Secondary occupational education enrollments were 58 percent female. This was due primarily to high female enrollment in business and office programs, which were 78 percent female. Females also accounted for more than three-quarters of the enrollment in health and home economics programs, while males dominated trade, industrial, and service; technical; and agricultural programs. Enrollments in occupational education programs at the BOCES were 60 percent male.

OCCUPATIONAL EDUCATION ENROLLMENT
BY SEX AND LEVEL OF INSTRUCTION



Of the total number of adults enrolled at secondary agencies, 63 percent were male. Apprentice programs, in particular, were male oriented; more than 99 percent of the adults receiving related instruction as apprentices were male. Moreover, 55 percent of those adults receiving occupational education on a part-time basis at public 2-year colleges were male. Overall, males accounted for 60 percent of the total number of students who received occupational education at the adult level.

Post-secondary occupational programs also served a majority of males. Unlike the secondary and adult levels, post-secondary business and office programs served about as many males as females. Enrollment in the next largest program, health occupations, was 81 percent female. However, 53 percent of total post-secondary occupational enrollments were male.

Minority group participation rates in secondary occupational education programs were consistent with their representation in the entire secondary public school enrollment. Blacks accounted for 14.75 percent of secondary occupational students and 14.05 percent of the total public secondary school enrollment, grades 9-12. Overall, minority group members (blacks, Spanish-surnamed Americans, American Indians, and Orientals) represented 25.2 percent of the secondary occupational enrollment and 22.6 percent of the total public secondary school enrollment.

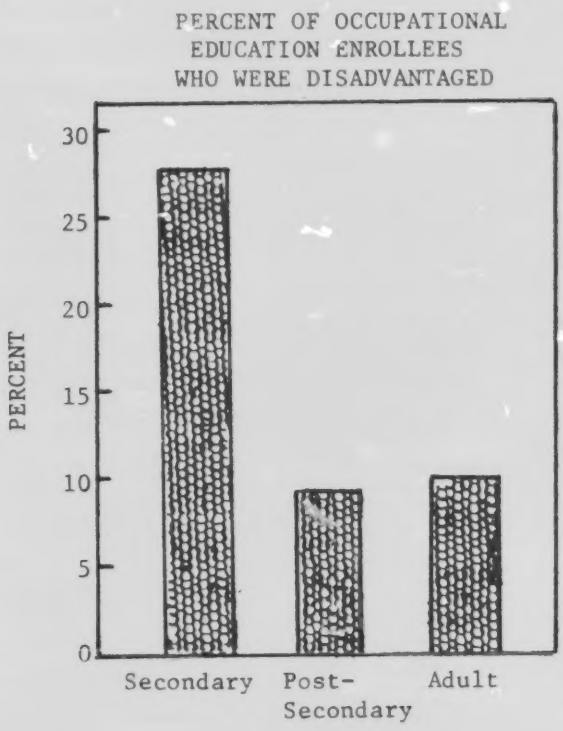
Adult programs offered at secondary agencies enrolled a slightly higher proportion of minority group members--27.6 percent. Combining these adults with the adults served in occupational education programs at the urban centers and on a part-time basis at public 2-year colleges, minorities represented 23.1 percent of the total adult occupational education enrollment. However, in adult programs providing related instruction for apprentices, only 8.8 percent of the students were minority group members. Only 6.9 percent of post-secondary occupational education enrollees at public 2-year colleges were reported as members of minority groups, although minorities represented 18.5 percent of the total post-secondary enrollment at public 2-year colleges.

Minority group enrollments in occupational education programs were concentrated in the six major cities. Eighty-five percent of the secondary minority group enrollees and ninety-three percent of the adult minority group enrollees were served in these cities.

PERCENT OF OCCUPATIONAL EDUCATION
ENROLLEES WHO WERE MEMBERS OF MINORITY GROUPS
BY LEVEL OF INSTRUCTION

	Secondary	Post-Secondary	Adult
Black	14.8	4.4	15.2
Spanish-Surnamed American	8.4	1.8	7.0
American Indian	.4	.08	.1
Oriental	1.6	.6	.7
Total - All Minority Groups	25.2	6.9	23.1

•Special needs students, requiring special programs or supplementary services in order to succeed in occupational education, comprised about 26 percent of the total secondary occupational enrollment. During the 1973-74 school year, 92,200 disadvantaged and 8,066 handicapped students were served in occupational education program offerings. Of the total number of disadvantaged and handicapped enrollees in secondary occupational education, most were served in the six major cities--83 percent of all disadvantaged enrollees were served in these cities, while 72 percent of all handicapped enrollees also received their instruction in the six major cities. Of the handicapped students served outside the six major cities, 65 percent were served in the BOCES programs.



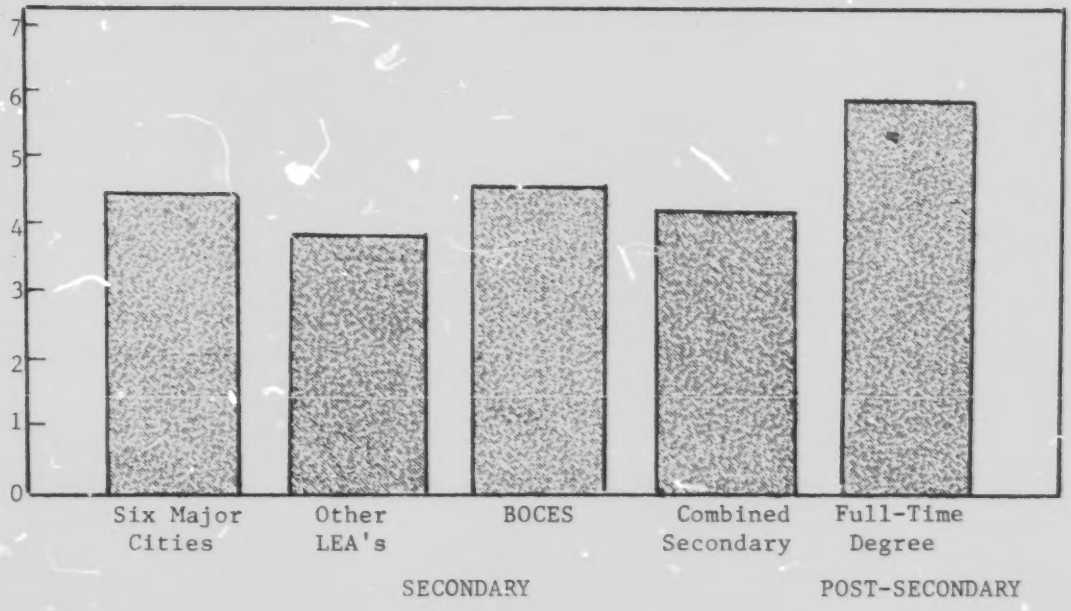
Adult and post-secondary occupational programs served a lower proportion of special needs students. About 9 percent of the adult students receiving occupational education at secondary agencies were disadvantaged, with 80 percent of these adults being served in the six major cities. Nearly 95 percent of the educational opportunity center enrollment, however, were disadvantaged. Overall, about 10 percent of all adult students enrolled in occupational education programs were disadvantaged. Approximately 8 percent of the post-secondary students enrolled in occupational education programs were disadvantaged. Handicapped students accounted for .4 percent of the adult enrollment and .8 percent of the post-secondary enrollment.

Disadvantaged enrollments were most concentrated in health occupations programs at the secondary level. Over a third of the secondary health occupations enrollees were disadvantaged. The distribution across the seven program areas of post-secondary and adult disadvantaged students as well as handicapped students at all levels is roughly coincident with the distribution of general students.

Cooperative work experience programs served 20,203 occupational students during the 1973-74 school year. This increase in enrollments resulted in a growth rate in excess of 18 percent over the previous school year. About 4.2 percent of secondary and 5.6 percent of post-secondary full-time degree occupational students participated in cooperative programs. At the secondary

level, most cooperative students were enrolled in trade, industrial and service, or business and office education programs: 31 percent in trade, industrial, and service programs; 28 percent in business and office education programs. Cooperative programs in distributive education, however, accounted for the largest share of the total enrollment in any individual secondary level program area, 23 percent. This was again true at the post-secondary level; cooperative distributive education program enrollments equalled nearly 29 percent of the total full-time degree enrollment in that program area.

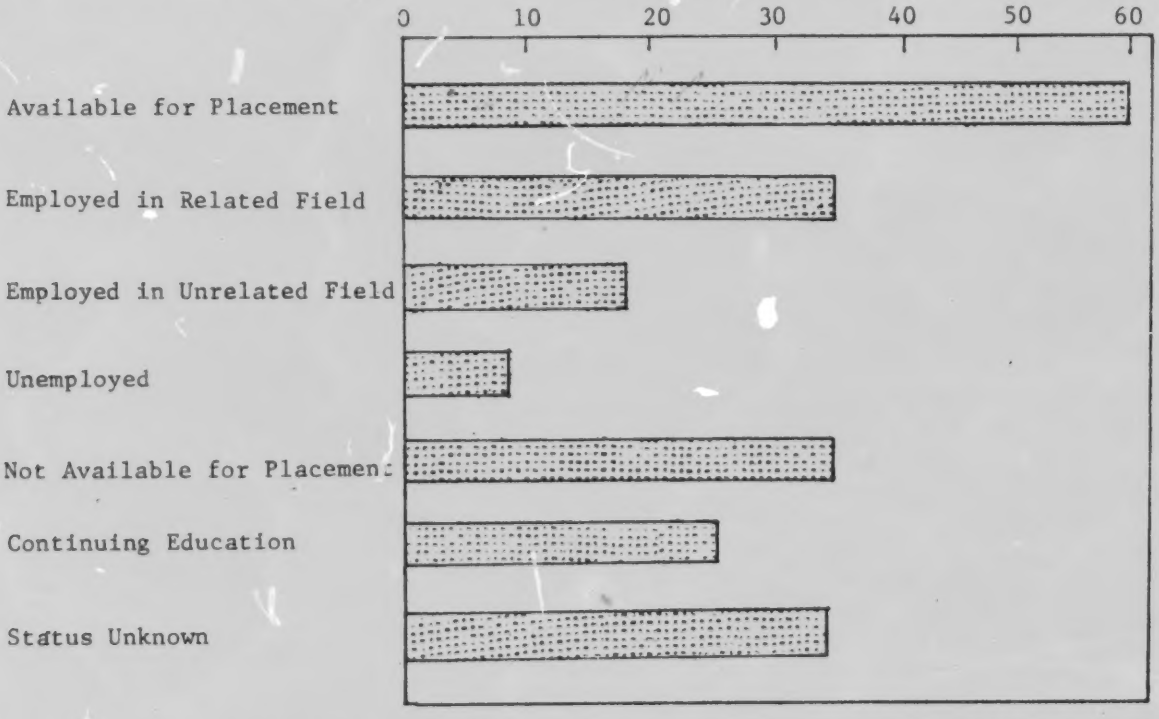
PERCENT OF OCCUPATIONAL EDUCATION ENROLLEES
WHO WERE IN COOPERATIVE WORK EXPERIENCE PROGRAMS



One of the most important measures of occupational education is the ability of its graduates to secure and hold jobs in the occupational field for which they are trained. Currently, the Reporting and Evaluation System for Occupational Education (RESOE) requires follow-up surveys of those students who complete occupational programs at each of the various levels of study in order to determine, among other things, whether individuals have been employed in occupations for which they were trained. During fiscal year 1974, data concerning the employment status of students who completed occupational education programs in the 1972-73 school year were collected and summarized.

In 1972-73 more than 128,000 individuals completed occupational programs at the secondary, post-secondary, and adult levels of study in public educational institutions across the State. These individuals constituted the potential supply of trained workers prepared through occupational programs to enter the labor force. However, 36,721 individuals were known not to have been available for placement for various reasons. Over 68 percent of these persons were electing to continue their education and will presumably enter the labor force at a later time. At the same time, 60,638 individuals responded that they were available for placement. Of this actual known supply, 35,233 individuals secured jobs in fields related to their occupational training, while 18,653 others accepted employment in fields unrelated to their occupational training. There were another 6,752 persons who were actively seeking employment but remained unemployed at the time they were surveyed. Also excluded from these status groupings are 30,948 individuals who completed occupational programs but whose status is unknown because they could not be located or did not complete and return survey questionnaires.

SUMMARY OF 1972-73 OCCUPATIONAL EDUCATION COMPLETION DATA (In Thousands)



Secondary occupational education programs were completed by 90,622 students. Of this total, 30,588 individuals were not available for placement, 70 percent of them because they were continuing their education. However, 40,532 trained persons were available for placement in business and industry. Altogether, nearly 88 percent of these labor force entrants obtained employment while the remaining 12 percent were reported as seeking employment at the time of the survey.

Follow-up information at the adult level is collected for adults enrolled in preparatory programs only. The assumption is that these adults are preparing themselves for employment in a new field; whereas, those adults enrolled in supplementary programs presumably have jobs already and are seeking improved competence and/or advancement in their present fields. There were 20,518 adults who completed occupational programs on a preparatory basis. Secondary agencies accounted for 95 percent of adult preparatory completions, while the educational opportunity centers recorded the remaining 5 percent.

PERCENT OF PERSONS AVAILABLE FOR PLACEMENT
EMPLOYED FULL-TIME IN A RELATED FIELD
BY PROGRAM AREA AND LEVEL OF STUDY

Program Area	Secondary	Post-Secondary	Adult
Agriculture	53	81	41
Distributive Education	57	85	53
Health Occupations Education	72	87	54
Home Economics (Gainful)	38	62	2
Business and Office	55	74	50
Technical Education	47	86	61
Trade, Industrial, and Service	58	78	43

Community colleges and 2-year agricultural and technical colleges had 17,167 occupational students complete programs. More than 93 percent of these completions were in full-time degree programs. Of the 8,270 known individuals who actively sought employment upon completion of an occupational program at this level of study, more than 80 percent secured full-time jobs in an occupation related to their training. Another 12 percent accepted employment outside of their training, while less than 7 percent remained unemployed at the time of being surveyed despite actively seeking employment. There were 3,237 known persons completing occupational programs at this level who were not available for placement, 85 percent of whom indicated continuing education as their reason for non-participation in the labor force at this time. Nearly one-third of the total post-secondary completions were of unknown status.

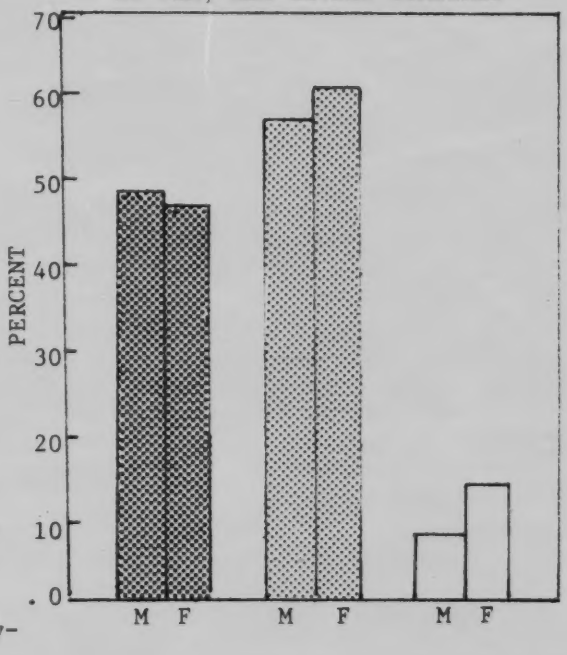
The distribution of completions among program areas at all levels of study parallel the distribution of enrollments at each respective level of study.

Total secondary completions were 58 percent female, approximately the same share as that of total secondary enrollments. Females accounted for more than three-quarters of the completions in health, home economics, and business and office education; while male completions were concentrated in the remaining occupational program areas. The percentage distribution of males and females among each of the various status groupings identified in the follow-up survey were approximately equivalent. Each sex, assessed individually, revealed labor force participation rates of nearly 45 percent. Of these labor force entrants, females as a group displayed a greater likelihood of being employed full-time in a related field despite having a slightly greater incidence of being unemployed. At the same time, males entering the labor force more commonly accepted full-time employment in an unrelated field after completing occupational training.

Overall, completions at the adult level were 55 percent male. Completions at this level are not as heavily weighted with males as are enrollments, due to the exclusion of supplementary and apprentice program completions from the follow-up survey. Characteristics of individuals who have completed occupational programs at secondary agencies and educational opportunity centers differ to the extent that any consolidation of the two would distort actual relationships within each of the respective aggregates.

Approximately 56 percent of those adults who completed preparatory occupational programs at secondary agencies were male. Moreover, nearly 67 percent of these males entered the labor force, while only 45 percent of female completions elected to participate in the labor force. However, equivalent percentages of both male and female entrants into the labor force secured full-time employment in a related field, while males were twice as likely as females to obtain full-time employment in an unrelated field. This, in part, was influential in producing an adult male unemployment rate of 6 percent as opposed to 18 percent for females.

COMPARISON OF WORK RELATED STATUS BY SEX, ALL LEVELS COMBINED



Labor Force Participation Rate

Percentage of those Available for Placement Who Obtained Full-Time Employment in a Related Field

Percentage of those Seeking Employment Who are Unemployed

More than 75 percent of total completions of occupational programs offered at educational opportunity centers were female. Of the total number of completions, approximately 75 percent of each sex entered the labor force. Again, males and females were equally likely to secure full-time employment in a related field, and again males were more likely than females to obtain employment in an unrelated field. This also was reflected in the female unemployment rate of nearly 22 percent, twice that of their male counterparts.

Total post-secondary completions were 54 percent male. At this level, females were slightly more likely than males to enter the labor force, as well as to secure full-time employment in a related field. Males, however, were twice as likely to obtain employment in an unrelated field and had an unemployment rate slightly lower than the female rate of 3.5 percent. Of the individuals not entering the labor force, three times as many males as females elected to continue their education.

At the secondary level, minority group members accounted for 5.5 percent of total completions. Specifically, blacks represented 4.3 percent of all secondary completions. Nearly 60 percent of all minority group members who completed occupational courses at the secondary level were female. Almost 56 percent of these females entered the labor force, while 52 percent of all male completions participated in the labor force as well. Approximately 60 percent of both male and female minority group members who elected to enter the labor force secured full-time employment in a related field. Minority group members who were unemployed constituted a little more than 10 percent of those available for placement for both males and females.

At the adult level, minority groups accounted for more than 12 percent of total completions while blacks constituted two-thirds of this percentage. Male and female shares of completions were approximately equal. Adult males registered a 65 percent labor force participation rate while females scored 59 percent. Nearly 55 percent of female entrants secured full-time employment in a related field compared with 38 percent of male participants. The unemployment rate for female minority group members was 22 percent; males fared slightly better with a 15 percent rate, reflecting once again the greater likelihood of males obtaining employment in an unrelated field.

Completions of occupational programs by minority group members accounted for 7 percent of the total completions at the post-secondary level. More than 63 percent of females and 53 percent of males participated in the labor force upon completion of their occupational training at the public 2-year colleges. Nearly 85 percent of both male and female labor force entrants obtained full-time employment in a related field. Even more significant is that the unemployment rates of male and female minorities were only 3 percent respectively at this level of study.

More than 18 percent of the total secondary completions were comprised of students with special needs, the disadvantaged and handicapped. Approximately 43 percent of those students with special needs who completed occupational programs entered the labor force. More than one-half of these labor force entrants secured full-time employment in a related field. Another 20

percent became unemployed, while the remainder found employment in an unrelated field or on a part-time basis. Of those not entering the labor force at this time, more than 80 percent are continuing their education.

Adults with special needs accounted for nearly 19 percent of all adults who completed occupational programs. These adults had a labor force participation rate of nearly 68 percent and an unemployment rate of 12 percent.

Approximately 5 percent of the total post-secondary completions were persons with special needs. Nearly 93 percent of those individuals with special needs who completed, did so in degree programs. Almost 50 percent of those special needs students who completed programs at this level entered the labor force. Nearly 80 percent of these labor force entrants obtained full-time employment in a related field, while 5 percent became unemployed.

Cooperative work experience programs were completed by 8,841 students at the secondary and post-secondary level. Approximately 9 percent of the total secondary completions were in cooperative work experience programs. The majority of secondary cooperative program completions occurred in business and office education; distributive education; and trade, industrial, and service programs. At the secondary level, nearly 61 percent of those known to be available for placement were employed full-time in a related field. However, nearly 10 percent of those students who completed secondary cooperative programs and were known to be available for placement were not employed at the time of the follow-up survey. Approximately three percent of the total post-secondary completions were in cooperative work experience programs. About 70 percent of post-secondary cooperative program completions occurred in distributive education programs. Nearly 77 percent of those individuals completing post-secondary cooperative programs and known to have been available for placement were employed full-time in a related field. Moreover, only 1.5 percent of those known to be available for placement were unemployed at the time of the follow-up survey.

SUMMARY OF ENROLLMENTS IN OCCUPATIONAL EDUCATION
(1974)

	Secondary	Post-Secondary	Adult
Agriculture	9,801	3,177	4,241
Distributive Education	18,400	6,361	5,982
Health Occupations Education	13,334	15,292	12,669
Home Economics (gainful)	8,075	2,192	3,031
Business and Office	217,904	23,928	52,764
Technical Education	14,122	10,849	7,588
Trade, Industrial, and Service	105,203	12,398	70,829
Total	386,839	74,197	157,104
Consumer and Homemaking 7-12	249,678	----	70,311

DISTRIBUTION OF ENROLLMENTS BY ETHNIC CATEGORY,
POPULATION GROUP, TYPE OF PROGRAM, AND LOCATION

	Secondary	Post-Secondary	Adult
Black	57,069	3,241	23,941
Spanish-Surnamed American	32,590	1,342	11,082
American Indian	1,460	64	149
Oriental	6,178	463	1,146
Other	289,542	69,087	120,786
Cooperative	16,209	3,994	----
Regular	370,630	70,203	157,104
Apprentice	----	----	11,567
General	286,575	68,104	141,180
Disadvantaged	92,200	5,503	15,262
Handicapped	8,066	590	662
BOCES	56,486	----	29,637
Six Major Cities	145,519	----	68,997
LEA	184,834	----	14,939
2-Year College	----	74,197	40,069
Educational Opportunity Center	----	----	3,462

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Program Developments and Accomplishments

ELEMENTARY AND EARLY SECONDARY

- Goal: Enable students in all grades to develop awareness and understanding of the nature of work and the wide variety of occupational needs and opportunity in our society, and to explore and develop their own needs, interests, and abilities in relation to present and future roles as students, workers, and members of society.

Accomplishment

During 1973-74, nearly 250,000 students in grades 7-8 and over 150,000 students in grades 9-10 were served in traditional prevocational programs in the areas of industrial arts, home economics, business, and agriculture. However, as described below, major emphasis during the fiscal year was on developing a more comprehensive, interdisciplinary approach to occupational orientation and exploration for students at all educational levels, with particular emphasis on the elementary and early secondary grades.

Description

In their 1971 position paper on occupational education, the Regents called for development of extensive career awareness, orientation, and exploration activities at the elementary and early secondary grade levels, to ensure that by age 15 students have the necessary information and decisionmaking skills to make meaningful choices leading toward educational and occupational goals. During the same year, the United States Commissioner of Education identified career education as a major national educational priority, giving additional impetus to the Regents policy statement.

During the 1971-72 school year, the State Education Department responded by forming a committee to study and report on the subject of career education and its implementation in New York State. Based on the report of this committee, in April 1972 the Assistant Commissioner for Occupational Education issued a set of guidelines for the development of career education in New York State. These guidelines provided for considerable area and regional autonomy in designing career education strategies to meet varying needs and circumstances throughout the State.

The guidelines indicated that Vocational Education Amendments (VEA) funds would be available through the State Plan to assist areas and regions in developing career education models suitable to their particular needs. They specified that, to be eligible for funding, career education activities: (1) should be measurable in terms of behavioral objectives for approximate key ages of students; and (2) should emphasize developing teacher understandings of career concepts and integrating career concepts through all curriculum areas, rather than establishing special career education courses and teachers.

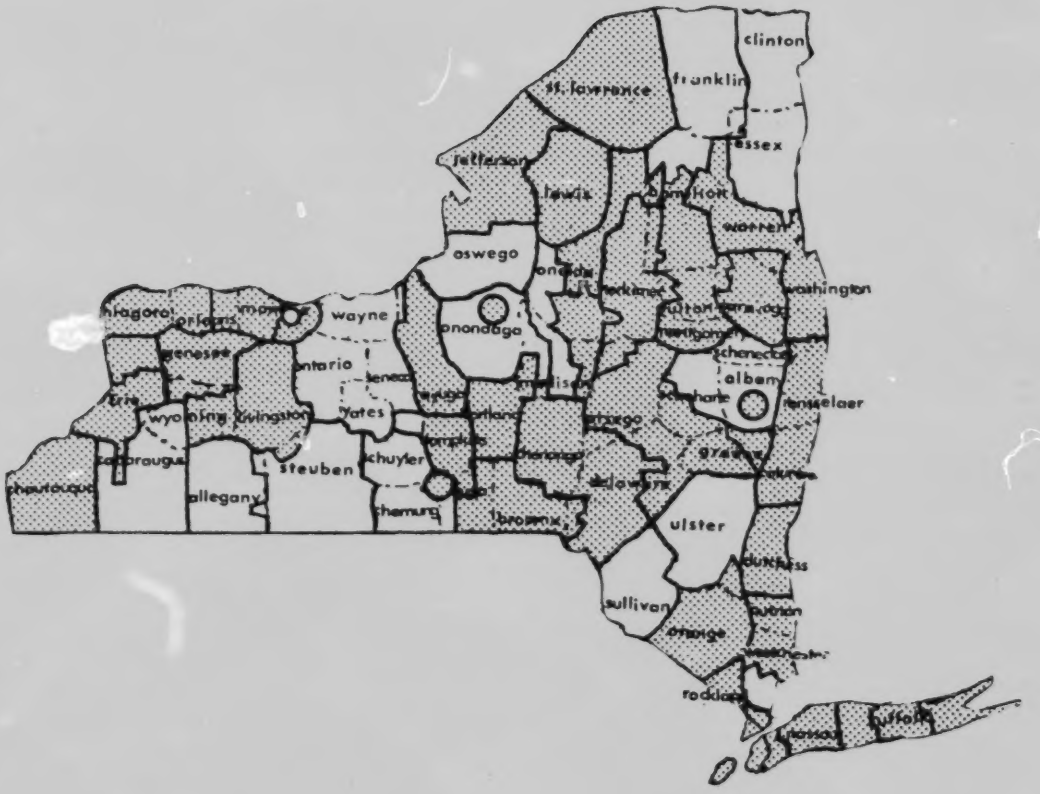
During the 1972-73 school year, 22 area and regional career education models received funding under the career education activity in the State Plan for Occupational Education. Another two career education projects were funded as exemplary programs, and one--the State Project to Implement Career Education (SPICE) in New York City--was funded through a special grant from the United States Commissioner of Education. Again in fiscal year 1974, 25 career education models were funded. In this year, New York City's SPICE program was funded through the State Plan, while projects in Syracuse and Yonkers received special Commissioner's grants.

In most of the VEA funded models outside the large cities, a Board of Cooperative Educational Services (BOCES) acts as the sponsoring local agency. There are three exceptions: two models involve a consortium of schools--Spencer-VanEtten and Mamaroneck--and one sponsor is an elementary school in a centralized system--Bethlehem Central. Geographically, the projects extend throughout New York State, as shown on the map of career education models.

At the State Education Department, a career education coordinator has been designated, and monitors, drawn from each of the occupational education instructional bureaus, have been appointed to act in a liaison/advisory capacity with the regional project coordinators. The SED monitors attempt to visit each project monthly.

Additionally, in each funded project money is budgeted for an outside evaluator. In six cases, the Cornell Institute for Research and Development contracted to perform the evaluation. The other projects either contracted with individual evaluators or were able to use the services of the staff evaluators employed by the BOCES. These evaluators worked closely with the coordinators, particularly in clarifying and/or restructuring goals, identifying testing materials, conducting onsite evaluations, and preparing a final evaluation report. At the State level, the Bureau of Occupational Education Research provided guidelines for monthly reports by the coordinators, gathered overall statistical data from the projects, made a minimum of one site visit to each project, provided research assistance as requested, and prepared two interim reports for the coordinators and monitors.

CAREER EDUCATION TARGET AREAS



The shaded portions of this map indicate areas of New York State potentially affected by FY 1974 funded career education models.

During the year monitors, coordinators, administrators, and State Education Department personnel have met twice for a 2-day session. As the projects have developed, the need for articulation and support from areas other than occupational education has been felt and sought. This year SED personnel in administration, guidance, curriculum, minority affairs, nonpublic schools, and post-secondary education have been invited to and participated in these meetings. In addition, the SED publication Inside Education featured the SED career projects. Thus, this year career education has had exposure to other SED areas, and evidence of interest and support is increasing.

It was the original intent that each of the funded projects would be independently developed; however, while projects reflect individuality in response to community needs and interest, there are common program elements. Logically, the project design includes these stages: 1) planning, 2) development, 3) implementation, and 4) impact on learning. These commonalities have emerged:

1. Generating and disseminating career education information to the public, decisionmakers, educators, and students, through TV, radio, the press, newsletters, organizational meetings, and district and building meetings.

2. Conducting workshops to clarify and promote understanding of the mechanics of infusion of career education into ongoing curriculums, and of writing infusion modules. Nearly 3,700 teachers, guidance counselors, librarians, and other staff members have been involved in such workshops during fiscal 1974.

3. Establishing resource centers.

4. Surveying, listing, and utilizing community resources, including industry, parents, and organizations.

5. Establishing inservice and college credit courses.

6. Utilizing the Boy Scout Explorer activity in career education.

7. Recognizing the value of and utilizing advisory boards and task force committees.

8. Working more closely with guidance counselors.

9. Soliciting assistance from SED instructional units other than Occupational Education.

10. Revising curriculum materials.

11. Writing newsletters.

12. Depending on third party evaluators for formative evaluation and implementing their advice.

13. Working with and sharing ideas with other project coordinators, e.g., a western group which meets about once a month.

14. Evaluating more critically commercial materials available in career education.

15. Seeking additional funding sources.

The concentration of effort this year has been teacher centered--utilizing inservice workshops; developing materials; providing supportive services such as library resources; increasing awareness, understanding, and knowledge of business and industry. In 22 of the funded projects, about 299 elementary schools, 224 junior and senior high schools, and 41 nonpublic schools have been involved. Based on enrollment figures, excluding New York City, 5 percent or 60,638 of the elementary students, and 4 percent or 42,398 of the secondary students have been exposed to career education.

Within each of the projects a variety of publications have emerged, dealing with curriculum building, instructional units, guidelines for establishing resource centers, a source book of commercially prepared materials such as audiovisual materials, simulation games, a source book for inservice education, guidelines for field visits, guidelines for establishing business-industry-community resource files. A guidance counselor developed a "Career Guidance Source: A Model for Developing Career and Self Awareness."

The following paragraphs describe in some detail the distinguishing characteristics of the 25 career education models, beginning with the 22 regional models outside New York City, continuing with the specially funded Syracuse and Yonkers projects, and concluding with the New York City SPICE project.

Bethlehem Central School District

This project differed from the others, in that the coordinator was hired as a teacher. Therefore, he did not have an authority role and his work hours were teacher work hours. In addition, the project was confined to a single school system and specifically to an elementary school (but later expanded to three other elementary schools). There was initially a great deal of resistance to career education, mostly because of lack of understanding of the concept in this primarily professional, upper middle class community. However, the coordinator was successful in disseminating accurate career education information,

and in establishing a network of parents to assist in soliciting resource people needed by the classroom teacher. He was instrumental in putting together a 2-day career fair which highlighted skill trades and career options existing for those who wish to use skill trades as a career starter.

Broome, Tioga BOCES

This project is located in the southern central area of the State, with easy access to Cornell University and large industry-business resources. The coordinator made one of his major objectives the establishment of a business-industry-community resource file and a guide for field trips which would be easily accessible and useful to teachers. He was invited to serve on a national project committee which was engaged in an industry-community resource study. Through workshops, curriculum materials have been developed and written which teachers are now piloting in the schools. Special education units were among those written. The coordinator was instrumental in arranging a mini conference for guidance personnel.

Within the service area of this project, the City of Binghamton has also employed a career education coordinator.

Chautauqua BOCES

This project is located in the southwest area of the State, generally a rural area. The concentration of effort was on gaining commitment from administrators and teachers. The project this year created teacher awareness, prepared 25 curriculum units and career education bibliographies, and caused greater interaction between outside agencies concerning career education. In the area served by the project, Fredonia State University College and Jamestown Community College also hired quarter-time career coordinators.

Chenango, Madison BOCES

The project is located in the central southern area of the State--dairy country. The former project coordinator left after a full first year of operation and there was a 3-month lapse before a new coordinator was appointed. Fortunately, the pilot schools here are more autonomous than some in providing inservice training and developing infusion materials. Therefore, the project maintained some continuity. Currently, six pilot school districts are involved, with 650 teachers and 10,400 students. Approximately 40 teachers attended a summer curriculum writing workshop. The evaluators of this project note that the emphasis on school independence is a major strength and ensures survival of career education. About 25 percent of the staff members are involved in the project.

Cortland, Madison BOCES

The project is located in the fertile central area of New York with easy access to Cornell University and Cortland State University of New York. The project coordinator has utilized these resources. The project area includes 22 K-12 school districts with a student population of 52,000. Workshop writing sessions were held for instructors in special education, business, industrial arts, art, and homemaking. Teaching modules were genetally favorably evaluated by the teachers. A career education library was established in each center. Teachers visit and use the resources. The librarian has developed an I.B.M. computer printout of the holdings, including audiovisual aids which will eventually be distributed to librarians and guidance counselors. Outreach efforts to pilot schools have been accomplished by circulating materials through the use of busses. The librarian has been extremely helpful in educating school personnel concerning the career library resources. A survey made of approximately 500 students in grades 9-12 suggests that students have a positive attitude toward career education and a generally good understanding of it.

Dutchess BOCES

Located in the Mid-Hudson Valley, the project area covers both sides of the Hudson River. The coordinator had to devote his time to public relations, creating public awareness of career education, and gaining school support. The districts involved in the project changed, so that essentially the coordinator had to make a fresh start last summer. Actively involved in workshops were 78 elementary and secondary teachers who,combined,taught about 1,100 students. A special education workshop for the handicapped was held for teachers at New Paltz State College of New York. Coordination plans were made with I.B.M. to update the technology in the industrial arts program at one of the cooperating schools. A film resource center was established in order that teachers could easily have access to career education films.

Erie BOCES #1

Located on the outskirts of Buffalo, the students are a mix of suburban and urban groups. In this project the major thrust has been the field testing and revision of the Career Education Instructional Systems packet (CEIS). This has been a 3-year project to develop curriculum packages which could be tested. The project in Phase I concentrated on planning, organization, and preparation of model curriculum materials. Phase II concentrated on field testing and revision, and Phase III will include the implementation and dissemination. Phase II students in 320 classes in 100 schools are field testing the materials. Indications at this time are that the learning activity packets will need a major revision. Teams of teachers in

August 1974 were updating learning activity sheets. Revision of the assessment instrument is also planned.

Activities in the occupational clusters include exploration by teachers of agriculture concerning the development of an 8-10 week mini-course in careers in agricultural business for 7th and 8th grades. Similar task groups are examining careers in fine arts and humanities and natural resources. A model governmental studies program has been developed for testing. A mini conference was held for counselors, with 170 attending.

Greene #2, Delaware, Schoharie, Otsego BOCES

The project area is in central New York and covers an area larger than the state of Rhode Island. The program potentially covers 21 school districts, of which 19 are actively involved. The evaluators of this project noted that the coordinator's strategy for change and ultimate institutionalization of career education at the local level appears unique to this regional project. Oneonta State University College is accessible for workshops and its facilities have been utilized. Seventeen central school districts have had curriculum days with a career education display. Career education lessons for infusion at all grade levels, K-12, and in all subject areas, along with resource materials from all parts of the country were both ordered and copied by teachers, who adapted the material to fit their needs. Teachers not formally involved with career education are using these materials in their classrooms. Demonstration lessons in infusion techniques were also given at some of the schools during this time. A resource file has been made available in the career education office. A three credit graduate course at State University College at Oneonta was given to 44 teachers. A curriculum guide for career education (K-8, 9-12) is being assembled for BOCES schools.

Jefferson BOCES

The Jefferson, Lewis, St. Lawrence Counties project covers an area the size of the state of Connecticut. Because of its size, the coordinator and his assistant geographically divided the area and each works with his own area. However, they have a common office and work very closely toward the same objectives. A total of 1,543 students are involved in career education. This includes 80 percent of the school districts; 75 percent of the parochial schools are also in the program. Two regional career education resource centers have been established--one in the Jefferson, Lewis County BOCES office in Watertown. This center has a good variety of resources. The center at State University College at Potsdam is in an embryonic stage. Guidance counselors have been very supportive, and evaluation responses at workshops indicated a positive reaction from 88 percent of those who attended. At present 70 percent are involved. A unique 2-day

weekend was organized for guidance counselors and 10-12 graders at Lake Oswegatchie for the purpose of discussing values, career directions, goals, etc. It was deemed very successful. The CEIS packets from the Erie project were field tested by some schools. A newsletter proved very helpful in disseminating project information.

Livingston, Steuben, Wyoming BOCES

The project area is located in a rich farmland area. About 1,000 students in 21 local districts are involved in the project. Materials are being piloted in grades K-9 in 14 schools. Workshops were held for local school administrators and guidance counselors to investigate their roles in career education, with over 40 in attendance. Migrant education is a community need, and an inservice career education program was developed for migrant education teachers. A slide film presentation has been designed by teachers for the migrant education modules. Over 330 community resources have been identified, and a community resource guide for students has been developed. A new responsibility is a program entitled JOB SEARCH. This is a job order bank and involves students, employers, and regional counselors. A video tape, "Listen I'll Tell You," has been developed, and was widely used in presentations to administrators and counselors.

Mamaroneck Public Schools

The project area is primarily urban, located in southeastern New York. Five school districts participate: Mamaroneck, Rye City, Rye Neck, Port Chester, and Ridge Street. These districts include 16 elementary schools, nine junior high, and four senior high; about 2,700 students are involved. One workshop was held and attended by 42 teachers, four guidance counselors, and a librarian. Units were developed for K-6 and are being field tested. In Ridge Street career education has been infused in remedial reading projects. In Rye Neck, 33 seniors spent the month of May working in paid or volunteer jobs which range from ship carpentry, harpsicord building, work with the American Civil Liberties Union, and social service activities. In this school 16 teachers are actively involved in career education. In Rye City a workshop was held on infusing career education into existing curriculums and writing behavioral objectives. The workshop also supplied audiovisual materials which were previewed for grade level. In Mamaroneck projects have been started in music, fine arts, transportation, and communication. A symposium devoted to careers in and relating to the performing arts will be held in the fall of 1974. In Port Chester curriculum materials are being tested with a pilot and control group. A unit has been developed on Understanding Retardation--a study through selected literature. In Ridge Street introductory 6-week units were designed for infusion into the curriculum.

Monroe BOCES #1

The Monroe project was located near Rochester. The area abounds in business, industry, and cultural opportunities. A coordinator was not appointed until late in the year, so that the main thrust was public relations, gaining school support, and meeting with other related agencies. Six school districts are in the project area and include five elementary schools, two junior high, and four high schools. A newsletter was distributed to 1,400 staff members in BOCES #1 and two schools in BOCES #2. This project never gained momentum and has been dropped.

Nassau BOCES

Ten Long Island districts are committed to this project, but seven others have sought career education service. The involved schools include five elementary, three junior high, and four high schools. In the second year of funding, Phase II aimed at the development and initial implementation of a countywide career education model K-12. It consisted of three major components: curriculum and inservice, management, and community resource. This was viewed by the evaluators as a critical stage of the project because it led to the first product outcomes. These have been achieved and career education materials and awareness have been developed where previously nonexistent. The curriculum and inservice components had two objectives. The first was to develop materials in career education using input of cooperating teachers in the county. This was accomplished in K-6 but not in 7-12. The second was to stimulate awareness of the nature and importance of career education in the county. This second objective was a strong achievement of the project, as many people in different professional positions were given introductory career education materials. The management objective, which was designed to facilitate communication between the project staff and various educational resources, was adequately designed and executed. The community resources component will be further developed in Phase III of the project. A slide tape developed by the project staff was used at the Nassau County Congress of Parents and Teachers and at the 15 workshops which were cooperatively planned with the Mineola career project staff. A career education newsletter was distributed to parents, educators, and people in business and industry. At Glen Cove the middle school principal and the career education team are developing a Career Resource Data Bank. This includes a list of all city government departments, factories, and commercial firms in the city. An organizational chart accompanies the listing and describes the functions of people working at each level.

Oneida #2, Hamilton, Herkimer BOCES

Three counties are included in this project--Oneida, Hamilton, and Herkimer--located in the north central area of the State, where industry has shifted and the economy has been affected. The particular contribution made by this project is a Career Education Classification System which was developed cooperatively with the librarians and has had

widespread use. A particularly good public relations team was developed, consisting of the coordinator and three cooperating teachers who were in demand by their area and by other projects for their ability to stimulate interest and enthusiasm for career education. Twenty-two school districts were involved, including 20 elementary, nine junior, and 12 high schools. Approximately 300 teachers were trained in workshops. A total of 116 curriculum units have been completed.

A six-credit graduate course in career education at State University College in Rome/Utica was established through the coordinator's effort. A work-study mini course will be offered to the Holland Patent High School students, due to the efforts of the director of a community education project funded by HEW and the career education coordinator. A newsletter was initiated and will be a communication link with the educational community as well as organizations and parents. Students in the Westmoreland Road Elementary School simulated a "token economy" as a means of learning about the economic element of career education.

Orleans, Niagara BOCES

The Orleans, Niagara project, known as the "Child to Adult Program for Career Orientation" (CAPCO), is located in the far western part of the State in a fruit and truck farm area. There are 16 school districts in the project, with 44 elementary, 21 junior high, and 12 high schools. The unique strength of this project is the effective working relationship with guidance counselors. There were 13 counselors who, as a culminating project, wrote career education programs for their schools. The career guidance program for Indian students is a particularly useful one, since there are few programs which have focused on the career needs of Indian students. A series of regional workshops which included about 125 teachers, administrators, counselors, and other secondary specialists proved to be most effective. The workshop plan allowed for writing curriculum, classroom trial, critiquing, and revision. A guide to field trip locations, resource people for classroom visits, and employment opportunities was compiled and distributed. Approximately 160 names and locations of resource people from the Niagara and Orleans Counties area are included. Also compiled and distributed was a guide for commercially prepared materials. A team of teachers who earlier had participated in a CAPCO infusion workshop organized eight inservice sessions at Lewiston-Porter School.

Putnam, Westchester BOCES

This project is located in the southeast area of New York. Eleven school districts are involved, including six elementary, five middle, seven high schools, and one parochial school. There are about 6,000 students enrolled in the participating schools. Trained in workshops were 100 teachers, 44 guidance counselors, and two librarians. A handbook was developed for career education which provides guidelines

for the establishing and implementation of career education in a school. This contains four components: 1) a manual for elementary teachers, 2) a manual for middle school/junior high school teachers, 3) a manual for secondary school teachers, and 4) a manual for guidance counselors. A resource file in the project office is available to all teachers. In New Rochelle, seven inservice sessions were held. The elementary teacher trainer has been very supportive of career education and has conducted orientation sessions in Carmel for middle and high school teachers. Henry Hudson school system teachers implemented a 6-week program for mentally retarded students. A newsletter circulated in the project area provides State and national career education news. A slide tape presentation was prepared for inservice programs.

Rensselaer, Columbia BOCES

Four school districts are included, involving four elementary schools, two junior high schools, and three high schools. Each of the school districts was organized into a task force consisting of teachers, administrators, and community personnel to implement the creation of a resource file for the project. The model for this resource file was adapted from a file developed by a team of elementary school teachers at Averill Park School District. This team had attended an Education Professions Development Act (EPDA) workshop in the previous summer. Writing workshops were attended by 52 teachers and two reading specialists. A planning booklet for career education infusion was prepared and distributed to teachers and other school personnel. A program televised on Educational Television aroused a great deal of public interest. It concerned a career-oriented project on leather products and included the actual preparation of the skin, curing, dyeing, and construction of salable articles. This was a correlated program for 9th grade students and included communication, economics, social studies, and work values. The students prepared the material for the script and explained their project activity.

Rockland BOCES

Rockland County is in the southern part of the State on the west side of the Hudson. Eight school districts were involved and include 17 elementary schools, seven junior high schools, and seven high schools with 5,800 students and 98 teachers. Several unique activities have emerged from the project. An internship program was designed for all students, both terminal and those bound for further education, to enable them to explore career opportunities in depth while learning about the real world and themselves within an individualized one-on-one setting. Four "Tour de Force" programs were developed with a local performing arts company to integrate performing arts as a backdrop toward the development of major concepts related to work and the work ethic. A guidance program involving 20 guidance counselors was conducted for nine 2-hour sessions. A newsletter is sent to all families in Rockland County. This project makes great use of its advisory board

in implementing its objectives. Sixteen locally developed units, especially one entitled "Kitchen Sink and the Classroom" (elementary) have had widespread use. The coordinator has worked closely with Rockland Community College and the Empire State College.

Saratoga BOCES

The coordinator left the project in early spring and a replacement was recently appointed. The area covered by the project goes up to the north country and demands a great deal of travel time. Eight school districts are included in the project, including eight elementary schools, eight junior high, and eight senior high. About 500 teachers were trained in workshops, and a publication, "Infusion Models in Career Education," was the result. The greatest success in the project occurred in the elementary grades. The methods used varied from a single classroom approach to an attempt to create a generalized approach with performance objectives for each grade. Workshops were held in the spring in Corinth, Mechanicville, and Schuylerville.

Spencer-VanEtten Central School

The project is known as the Rural District Career Concept Focus Plan. The southern tier schools in this project are: the Candor Central School District, the Odessa-Montour Central School District, Spencer-VanEtten, and Tioga Central School District. This area includes six elementary, four junior high, and four senior high schools with about 5,000 students. About 112 teachers, five guidance counselors, and three librarians were trained in workshops. A unique aspect of this project has been the close liaison with the New York State Labor Department, particularly in the career testing aspect, and with the Education Department of IBM, which is located in Endicott. Counselors in the schools working with the Labor Department were trained to administer the G.A.T. battery and earned a certificate to administer the test. A model course--"Careers in Fact and Fiction"--was developed and used. Eight instructional packets are available: Work and Attitudes of Dr. Tom Dooley from his book Deliver Us From Evil (grade 8); English--Work, A Vital Human Experience Found in Literature (grades 9-12); English--Critical Reading for the Comprehension and Appreciation of Attitudes (grades 10-12); Industrial Arts Wood Shop--Product Manufacturing (grade 8); Spanish--Mid-Life Career Need to Learn a Language (grades 9-11); Social Studies--The Role of Education in American Life (senior grades); and Science--Soil and Its Conservation (grade 8).

Suffolk BOCES #1

The project includes eight school districts--nine elementary, three junior high, three high schools--and teachers from BOCES #1, BOCES #2, and Suffolk County Community College. About 1,000 students are included. This is a teacher-centered project. Pilot teams have

completed preliminary curriculum units and these are being evaluated. The units will be field tested and reviewed in the fall. The basic goal was to prepare students to solve problems and make decisions that will enable them to adapt to changes in their lives and careers; to provide students with skills necessary for successful job entry; and to develop proper attitudes and behavior necessary to successfully hold jobs. The publication is entitled "Planning for Career Education in Suffolk County."

Suffolk BOCES #3

The project includes 18 school districts--18 elementary schools, five junior high schools, and four senior high. About 600 students are involved. "Operation Shadow," a project in which 24 career education teachers worked in a variety of jobs during the summer, ranging from factory, restaurant, to television studio, was highly successful and received State and national publicity in the press and on television. A Career Guidance Curriculum Unit was field tested in the South Huntington Public Schools and the manual prepared by a secondary career education consultant is available for use. The coordinator was instrumental in the development and publication of a series of career education books which deal with social studies, safety, and language arts. An illustrator is on the staff, so that the professional appearance of publications is a visual attraction and helps stimulate interest in the content. Workshops have been held for teachers in curriculum development, and the project evaluator noted the high degree of enthusiasm and interest that was reflected by the participants.

Syracuse and Yonkers

Syracuse and Yonkers have developed and implemented career education programs for kindergarten through fifth grade under a special VEA grant to the State Education Department through the United States Office of Education. In Syracuse, 28 Life-Centered Curriculum units (materials and techniques) have been completed, pilot-tested, and revised for implementation in the fall of 1974 in the city's elementary schools. Business and industry are participating through their individual representatives and the development of teaching aids and materials.

Considerable time has been spent in introducing career education concepts to all elementary teachers through inservice sessions. Since this year was the beginning of career education activities in Yonkers, the development of positive teacher-industry-community relationships has played a dominant role in the program. The project staff has been working with pilot school administrators and teachers in curriculum development, films and soundslide shows, television projects, and actual classroom instruction.

New York City

SPICE, the acronym used for the State Project to Implement Career Education in New York City, was begun in fiscal 1973 through a special United States Commissioner's grant to the State Education Department, resulting from a contractual agreement with the United States Office of Education. In fiscal 1974, SPICE received a VEA grant for the continuation of the project through provisions of the State Plan for Occupational Education.

The basic goal of the program is to develop and test an essentially self-perpetuating method of introducing, implementing, and disseminating the principles and practices of career education in New York City. This was to be accomplished by the creation of trained, independent school teams in each target district. Members of these teams would be capable of diffusing career education, not only in their own schools, but also eventually in other schools in the district, and ultimately across district lines at a relatively low level of expense to the district and the Central Board of Education.

Five basic steps toward this goal were planned: 1) changing the attitudes of educators toward career education and to schooling in general; 2) involving educators in the design and development of their own programs and curriculum materials; 3) involving them in the implementation of these programs and materials; 4) involving them in the evaluation of the programs and materials they have produced and implemented; and 5) developing a cadre of managers within the school capable of overseeing the development and dissemination of this process.

In fiscal 1973 three school districts, chosen to offer a spectrum of ethnic and economic backgrounds, were selected for participation in the program. District 11 (Bronx) represented a white blue-collar neighborhood; District 16 (Brooklyn) a disadvantaged black neighborhood; while District 31 (Staten Island) represented a white middle-class neighborhood. In each district, a junior high school and three feeder elementary schools were selected. Two interdistrict high schools, one in the Bronx and one in Brooklyn, were also chosen. The following schools were directly involved in the program: District 11--P.S. 41, P.S. 76, P.S. 103, JHS 113, Herbert H. Lehman High School; District 16--P.S. 26, P.S. 81, P.S. 129, JHS 57, Erasmus Hall High School; District 31--P.S. 41, P.S. 38, P.S. 52, JHS 2.

By the beginning of fiscal 1974, core teams consisting of a teacher from each grade level, a guidance counselor, and a librarian had been selected in each elementary school and had received extensive orientation to the principles and practices of career education. Junior high and high school teams consisted of representatives of each subject area, a guidance counselor, and the librarian. Including replacements for teachers transferred to other districts, dropouts, etc., and excluding school principals, a total of 175 school staff members were involved in the program in fiscal 1974.

Pursuant to the SPICE goal of involving participants in curriculum and program design, the Institute for Educational Development was contracted to run a series of workshops in career education curriculum infusion in the summer of 1973. These workshops, lasting 2 weeks for the elementary and junior high participants, and 4 for the high school representatives, focused on the creation of performance-based career education lesson plans paralleling lessons in the regular school curriculum. Use of outside resources was stressed, and the advantages of input by the guidance counselor and the librarian were explored. Guides to community resources developed by the SPICE staff were distributed. Representatives of the school administration were included in the workshops, and plans for the utilization of career education in each school were drawn up with their assistance. Materials developed by the participants were gathered into Curriculum Guides for each school level and published in August, as were manuals developed by the counselors and librarians. Those materials developed by the teachers served as the basis for their work in the coming school year.

In September the entire faculties at 10 of the 14 schools received a basic orientation to career education. Beginning in October, teachers agreed to implement and evaluate the lessons they had developed during the summer. In November, lesson plan evaluation forms were explained and distributed to the teams. In December SPICE staff worked on the development of a series of exercises in career awareness and self-awareness for teachers. In January meetings were held with all principals to discuss the progress of the program and to obtain commitments from them for the following school year.

A February training workshop produced mixed results. It became clear that some of the prospective trainers were still having trouble with fundamentals. However, on-the-spot revision of the program enabled SPICE to largely compensate for this and achieve most of its objectives. Subsequent evaluation feedback indicated that part of the problem lay in the SPICE attempt to couple the performance-based approach with career education. While some teachers found it valuable, others perceived it as a sterile academic exercise having little relevance to actual teaching, and a large number simply had difficulty learning it. Since the writing of performance objectives is peripheral to SPICE's central area of concern, career education, a decision was made to radically de-emphasize this approach in favor of a heightened concentration on infusion skills.

In April SPICE staff conducted an intensive series of school visits, observed classes, and administered an informal questionnaire as to what types of career education activities outside the lesson plans the teachers were engaged in. Results of this survey indicated that a considerable variety of career education activity was taking place in the schools.

By the end of April evaluation forms had been submitted for 45 percent of the lessons in the elementary guide, and a number of new lessons had been written. This figure was basically satisfactory, given teacher resistance to the completion of the forms, the fact that the year was not yet ended, and the fact that guides were not distributed until October and forms not until November. Returns from the high schools and junior high schools were much poorer and reflected the need for further developmental work at these levels.

In May a 1-day workshop was held for guidance counselors. This focused on a highly sophisticated demonstration of various guidance techniques and a discussion of their relative appropriateness in career guidance situations. In June the team leaders and candidates for District Career Education Coordinator positions participated in a workshop in group leadership and problem-solving techniques. In the summer of 1974, SPICE staff were in the process of preparing a detailed set of "How To" Guides on each aspect of the SPICE model in order to facilitate the process of its dissemination to other areas.

Over the course of the year it gradually became clear that although the elementary segment of the program was proceeding satisfactorily, much work remained to be done at the junior high school and high school levels in developing the exploratory and experiential aspects of the program. For this reason, negotiations for transfer of the program were ultimately limited to its elementary component. It was agreed that in the coming year each district would upgrade one SPICE teacher to the position of District Career Education Coordinator. At least one district has also expressed interest in funding a position for a part-time paraprofessional resource person. The salary of the coordinator will be allocated by the Office of Career Education, which will also function as a general support and resource for the career education efforts in the three districts. In addition, the Office of Career Education has agreed to conduct a series of summer workshops for participants from six new schools in these districts, as well as for a number of new teachers in the old schools. The District Coordinators have played a role in the planning of these workshops, and they and the school team leaders will be in charge of discussion and planning groups during the workshops.

SPICE has involved educators in program and curriculum planning, in the implementation of these plans, and in their evaluation. Career education teams are functioning in each of the schools and a small cadre of leaders has been identified and trained. In the coming year, SPICE will function in a purely consultative role at the elementary level. Thus, on this level, the full range of objectives of the program has been achieved, transfer is essentially complete, and the first steps of the expansion process are being implemented under the aegis of the Office of Career Education and the District Offices.

However, as has previously been indicated, it became evident that the junior high school and high school levels of the program needed a far more sophisticated approach than had been used this year. In the coming year, SPICE will move into an area which literature review reveals to be relatively unexplored. In the field of developmental psychology a great deal of work has been done on sequential learning; in other fields there have been a variety of experiments in exploratory and experiential career education. However, little has been done to synthesize these two discrete areas of endeavor. The principle SPICE task will be to concentrate on working with the teams in the current secondary schools and in two new high schools to develop a sequential approach to the areas of career exploration and experience from grades 7-12. Initial steps in this direction were to be taken in a workshop scheduled for July and the program will be developed gradually over the coming months. In conjunction with the Fashion Institute of Technology, developmental work on a post-secondary component is also planned.

As provided for in the 1974 State Plan, the Department utilized a major portion of the State's Education Professions Development Act (EPDA) allocation to conduct career education workshops for elementary and early secondary school personnel, in conjunction with the VEA funded career education models. General program objectives included: training a team of middle and junior high school personnel in 60 school districts to begin thinking and teaching in terms of career awareness; providing a base from which the schools can plan a district-wide career education program; providing a cadre of trained educators who can plan, develop, and implement an inservice program for other professional personnel in the district; providing a leadership team that is acceptable to other teachers in the district; and giving 11 teacher education institutions some familiarity and experience with career education.

Specifically, the program provided the participants with the following opportunities: to survey community resources, and learn how they can be effectively utilized; become more aware of the world of work; participate in experiences in business and industry; become aware of career development, including the aspects of student self-awareness and decisionmaking; become familiar with the use of behavioral objectives; study existing educational objectives and curriculum, and examine their relationship to career education; strengthen curriculum construction and modification skills; design some teacher and student activities related both to the existing curriculum and the world of work; develop a preliminary career education plan for their districts; and design an inservice program for other teachers in their districts, beginning with other teachers in their own buildings.

The program was designed to serve 22 teacher educators representing 11 teacher education institutions--Elmira College, Pace University in Manhattan, Pace University in Westchester, C.W. Post, the State University of New York at Albany, and the State University Colleges at

Brockport, Buffalo, Fredonia, Oneonta, Oswego, and Plattsburgh--and 330 teachers, counselors, and other support personnel representing 60 school districts.

During November and December 1973, a survey was conducted among teacher education institutions in the State to identify those colleges most interested and most capable of conducting such a program. By the end of January 1974, the 11 institutions selected had each identified two staff members to serve as institute co-directors. From February through May 1974, the Department, in conjunction with the Cornell Institute for Occupational Education, conducted a series of six training sessions for the instructors. Simultaneously, these two agencies and the 22 instructors worked to develop a model 5-week workshop for early secondary school personnel.

By the end of June, each college had developed a proposal for the summer institute, screened applicants and selected teams of participants, and conducted orientation sessions for team members.

Eleven 5-week institutes were conducted during July and August, 1974. Sixty-one teams, comprising 328 participants, completed the training sessions. These teams represented 57 school districts and 35 counties located in 12 of the 13 VEA planning regions. The only region lacking representation was Region 6 (Jefferson, Lewis, and St. Lawrence Counties). Nineteen of the VEA career education models were involved in program planning and implementation.

As a result of these 11 institutes, all 61 teams have developed programs for the implementation of career education activities in their own classrooms, and for staff development activities in their home schools during the school year 1974-75.

- Goal: Strengthen the consumer-homemaking learnings in grades 5 and 6.

Objective

Increase the number of students in grades 5 and 6 who participate in consumer-homemaking activities.

Accomplishment

A total of 16,337 students in grades 5 and 6 participated in consumer-homemaking activities.

Description

Four school districts field tested curriculum modules in grades 5 and 6 to determine effective ways of providing learning experiences which would help students develop consumer skills. A needs analysis survey was developed in each instance to determine student interests and additional knowledge and/or skills needed. School districts involved were Auburn, Luzerne, Cortland Campus School, and Ardsley.

Thirty-two fifth grade boys and girls in the Stewart M. Townsend Middle School, Luzerne, studied "Kitchen Safety" and "Putting the Basic Food Groups to Work." The needs analysis survey in this low to middle socioeconomic area indicated that the children and residents of the town as a whole needed to become more aware of the importance of good nutrition. Learning experiences included identifying foods in the Basic Four Groupings, and recordkeeping of foods eaten. Simple nutritious snacks that could be made at home were prepared. Future Homemakers of America students assisted a first grade teacher at lunch time to note eating habits of children.

The needs analysis survey indicated that 27 boys and girls in the sixth grade at Stewart M. Townsend Middle School, Luzerne, were interested in what they might do later in life, so they became involved in the "Career Chatter" module. Students in this community, which is made up of small farms and ranches, indicated a high interest in animals, and although they realized that some post-high school education would be necessary, they were not aware of job requirements. Learning experiences provided students the opportunity to discuss the meaning of work and interview people to discover reasons why they work at a particular job. The option was given to spend a day working with an adult friend. Students compiled information on responsibilities and qualifications of an employee, anticipated working conditions, and reasons for job selection. Examples of careers chosen by class members included veterinarian, Peace Corps member, missionary, stewardess, school teacher, clothes designer, kennel keeper, pilot, navigator, tree conservationist, scientist, and camp counselor.

At the campus school, State University College at Cortland, an open education approach to the teaching of consumer-homemaking was planned with area elementary schools. A full-time home economics teacher conducted inservice sessions to help teachers include consumer concepts in lessons and to develop resource materials. A total of 400 fifth and sixth graders were involved, 300 at area schools and 100 at the campus school. At one inner city school, each class of 25 students studied consumer areas in the regular classroom as well as in the laboratory. Lab periods were held after school, 4 days a week. At a rural school, each classroom teacher volunteered to teach one area of home economics to class groups of 25 with the assistance of a teacher aide and volunteer parents. Next year this program will be continued locally.

Sixth grade students at Ardsley improved their snack shopping abilities. Students suggested snacks that might be purchased, and evaluated the cost and nutritional value. From a classroom display of 20 snacks, one snack was selected, the nutritional value of ingredients evaluated, number of servings per package, cost per serving noted, and relationship to Basic Four Groups indicated.

SECONDARY

GENERAL

- Goal: Serve the increasing numbers of public secondary students who need and desire occupational education by providing diversified programs designed to meet manpower needs.

Objective

Increase the total number of public secondary students enrolled in occupational education programs.

Accomplishment

In fiscal year 1974, a total of 386,839 secondary level students were enrolled in occupational education programs, an increase of 22,060 students over fiscal year 1973. Of the total enrollment, 56,486 were in the BOCES area centers, 145,519 were in the six major cities, and 184,834 were in the local education agencies.

Description

The availability of occupational education offerings was increased last year by the opening of permanent new facilities at the Wayne Center of the Ontario, Seneca, Wayne, Yates BOCES and at Herkimer County BOCES.

Enrollment in occupational education programs also increased as a result of the addition and expansion of programs in existing facilities. A total of 14,037 students were served in new and expanded occupational education programs during fiscal year 1974. Of this total, 7,640 were enrolled in 136 new programs and 6,397 were enrolled in 108 expanded programs.

New and Expanded Secondary Programs and Enrollments
Fiscal Year 1974

Table 1

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Agriculture Mechanics	3		120	
Agriculture Production	3		110	
Conservation	4		135	
Ornamental Horticulture	4		140	
Total Agriculture	14		505	
DISTRIBUTION				
Apparel and Accessories		3		155
Advertising Services		8		300
General Merchandising, General Sales, or Sales Supporting	8		400	
Home Furnishings		1		22
Hotel and Lodging		1		32
Recreation and Tourism	1		20	
Transportation and Service		1		25
Other Distributive Education		4		117
Total Distribution	9	18	420	651
HEALTH				
Dental Assisting	6	5	165	214
Nursing, Licensed Practical Nurse Assisting		3		107
Home Health Assisting				
Medical Therapy Assisting	1	5	100	145
Health Occupations Education, Other	3	10	106	983
Total Health	10	23	371	1,449
HOME ECONOMICS				
Care and Guidance of Children	3	2	96	65
Clothing Management, Production, and Services		1		20
Food Management, Production, and Services	1	4	100	285
Institutional and Home Management and Supporting Services		1		25
Total Home Economics	4	8	196	395

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
BUSINESS AND OFFICE				
Bookkeeping and Accounting	2	3	100	113
Data Processing	1	11	745	457
General Office--Clerical and Typewriting	9	15	955	1,026
Stenographic, Secretarial, and Related Occupations	1	4	110	285
Total Business and Office	13	33	1,910	1,881
TECHNICAL				
Electronic Technology	2		160	
Electro-Mechanical Technology	1		24	
Environmental Control Technology	1		28	
Oceanographic Technology		1		50
Other Technical Occupations	1	2	40	90
Total Technical	5	3	252	140
TRADE, INDUSTRIAL, AND SERVICE				
Prevocational Curriculums	1	1	70	150
Air-Conditioning, Refrigeration, and Heating	2		120	
Appliance Repair	2		39	
Automotive Services	12	5	534	583
Aviation Operations	4	1	230	48
Commercial Arts Occupations	1		45	
Construction and Maintenance Trades	8	1	237	120
Custodial Services	6		257	
Drafting	2		86	
Electrical Occupations	3	1	89	40
Electronics	9	1	303	48
Graphic Arts	3	3	73	275
Machine & Metal Industries	7	3	299	161
Personal Services	2	1	125	40
Photography Occupations	2	1	70	40
Plastics Occupations	1		25	
Quantity Food Occupations	1		13	
Other Trade, Industrial, and Service	15	5	1,371	376
Total Trade, Industrial, and Service	81	23	3,996	1,881
TOTAL ALL PROGRAMS	136	108	7,640	6,397

The development and expansion of secondary level programs continued to be based on regional or statewide manpower needs. The manpower shortage areas were determined through special surveys; recommendations of advisory groups, craft committees, and business and industrial groups; and regional and statewide labor market reports and studies. In Ulster County BOCES, for example, a survey of manpower needs by a committee of local dentists resulted in the development of a new program of dental assisting. Dutchess County conducted research to determine the type of building trades program which would meet the needs of employers. As a result of the survey, a building specialties program composed of four modules of instruction was developed.

Occupational programs were also established, and the course content of existing programs revised, based on the specific needs of local businesses and industries. The city of Rochester developed a conservation program upon the request of the Rochester Recreation Bureau and the City School District Advisory Council for Occupational Education. The Recreation Bureau assisted in planning the program and provided summer employment experiences for the enrollees. In New York City a program in pet store management was initiated at the request of United Pet Dealers and Hartz Mountain Company. The United Pet Dealers provided supplies for the program. Also in New York, an outboard motor repair course was implemented in response to the needs of the pleasure boat industry.

Last year the activities of curriculum coordinators, employed in 18 different areas of the State, also resulted in closer alignment of courses and course content with manpower needs. These coordinators often cooperated with local advisory councils and school personnel in examining and updating curriculums based on local and regional job market needs.

Various resources were used last year as a means of providing additional students access to secondary level occupational programs. Existing facilities were used more effectively as a result of innovative daytime scheduling arrangements, more widespread offering of late afternoon and evening programs, and expansion of the summer school system.

The resources and facilities of businesses and industries, community agencies, and other educational institutions were also often used to provide additional educational opportunities for students. In the city of Syracuse, a dental assisting program was implemented through the efforts of the Department of Dentistry at the Upstate Medical Center. All lectures and laboratory work were conducted by the hospital medical staff at their facilities. In addition students were placed in jobs for part of the year by the local dental society. Cattaraugus, Erie, Wyoming BOCES reported having received donations of equipment from local industries, including a diesel engine from one equipment company and a grader from another equipment company. In Southeast Westchester County BOCES students in the auto mechanics program were able to receive practical experience on two new flood damaged automobiles donated by an automobile company.

In addition to efforts to increase the scope and availability of occupational programs, emphasis was placed on enhancing the quality of programs and services. Modular programming and multioccupational programs continued to be used as a means of improving the quality of programs. These methods enabled students to sample a variety of occupations, select the training for which they had interest and ability, and receive training in broad areas or in specific skills which cut along traditional program lines. Twelve BOCES area centers and the cities of New York, Rochester, and Syracuse reported that students had been served in multioccupational or modularized programs.

Use of interdisciplinary instructional design was reported by several occupational programs. The city of Rochester, for example, offered courses in occupational English and technical writing which integrated occupational and English courses as part of the eleventh and twelfth grade elective program. In another program a science teacher and graphic arts teacher jointly prepared curriculum materials on chemistry and physics topics. These topics were presented by the science teacher to the graphic arts students using the equipment and materials in the graphic arts program. In the city of Buffalo a course in aviation mechanics combined instruction in airplane and power plant maintenance with related mathematics, science, and drawing. The Buffalo City School District and Erie County BOCES #1 also jointly developed a program in medical electronics which combined elements of instruction from both the health education and trade and technical fields.

The classroom method of teaching occupational courses has usually been supplemented by laboratory or shop practices. In the last year this process was refined and extended through the use of simulated work environments. In Tompkins, Seneca, Tioga BOCES a model doctor's office was used as a center for instructing medical office assisting students. Agriculture students at Greene County BOCES #2 were provided valuable experience in managing farms or related businesses on an 80 acre dairy farm. Students in a pet store management program in New York City received a portion of their work experience in a model pet shop.

The following are some other instructional methods which were often used. Seven BOCES, and the cities of New York, Rochester, and Syracuse reported that they had developed individual learning packets for students. The cities of New York, Rochester, and Yonkers and six BOCES indicated that they had either developed multimedia communications centers or had relied heavily on video-tapes, slides, and films to supplement regular classroom instruction. These audio-visual materials were often used to record special lessons and demonstrations which were difficult to perform live but had great value in repeated review. Five BOCES and the city of Rochester reported utilizing the performance-objective concept as a means of improving instruction.

Many BOCES and cities reported that students were engaged in activities designed to benefit the community as well as improve the skills they had learned in the occupational program. Students were involved in constructing and renovating houses in the Washington, Warren, Hamilton, Essex BOCES, Lewis, Jefferson BOCES, Orange County BOCES, Steuben, Allegany BOCES, Dutchess County BOCES, Orleans, Niagara BOCES, Rensselaer, Columbia BOCES and Hamilton, Fulton, Montgomery BOCES. Also at Washington, Warren, Hamilton BOCES the conservation class developed several nature trails and picnic areas for the town of Argyle and the Washington County Infirmary, and provided reforestation and pruning services for the water shed area of the city of Glens Falls. At Tompkins, Seneca, Tioga BOCES child care program students provided a limited nursery school service for local mothers. Students in the air-conditioning program at Dutchess County BOCES installed all the duct work for heating and air-conditioning a new library. In Hamilton, Fulton, Montgomery BOCES cosmetology students periodically visited two county infirmaries and performed hairdressing services for elderly patients free of charge.

Occupational students also improved their skills and gained work experience by performing services in the school. The following are some of the types of in-school activities performed by students last year. At Tompkins, Seneca, Tioga BOCES the food service classes provided a cafeteria luncheon for the students daily. Lewis, Jefferson BOCES farm production and management students constructed a pole barn for a conservation sawmill which had been installed on the school site by the conservation class. In Dutchess County BOCES, data processing students prepared programs which assisted elementary teachers in tabulating reading scores.

Federal funds were also expended last year to serve additional segments of the secondary population in expanded distributive and office education programs in local schools. A total of 5,341 students were served in these programs; 1,833 in 22 business education programs; 2,403 in 17 distributive education programs; and 1,105 in combined business and distributive education programs.

In addition to stimulating program development and expansion, the special funding promoted new program design. Within the programs, regular classroom instruction was supplemented frequently by work experience in school stores, in simulated office settings, or in area business establishments.

Several of the new courses in business and office education have been targeted at segments of the school population not previously served. Five schools, for example initiated accelerated accounting and senior intensive stenography for students who were late decisionmakers.

Emphasis was also placed on serving students with special needs in the specially funded local distributive and business education programs. Programs for the disadvantaged often had block-time scheduling. In a 1-year, block-time program potential school dropouts received classroom instruction in the mornings and cooperative work experience in the afternoon. Another program provided units of instruction to disadvantaged students in selected business and office education courses in double periods over a 3-year period.

Objective

Increase the number of secondary students enrolled in cooperative work experience programs.

Accomplishment

A total of 16,209 secondary students were enrolled in cooperative work experience programs during 1973-74, an increase of 1,175 over the previous school year.

Description

During the past fiscal year emphasis continued to be placed on using Federal funds to develop, expand, and improve cooperative work experience programs in the urban areas. Ten expanded cooperative programs serving 2,365 students were conducted in BOCES serving urban areas. Thirty-three nonurban BOCES centers also reported that cooperative programs were conducted utilizing Federal funds designated for secondary program expansion, and State and local funds.

In addition to increases in programs and enrollments, several new and modified methods of serving students in cooperative programs have been initiated. In past years each cooperative program was designed to serve a single program area, providing enrollment was adequate to warrant a program area specialist. In the large cities, programs have been initiated which employ job developers, central office interviewers, and placement specialists serving students in several occupational areas. Another form of diversified cooperative education program which has been developed involves the placement of students from two or more program areas under the supervision of a single coordinator. This type of program has been used often as the final phase of a student's occupational program.

In the city of Yonkers, for example, two job developers canvass potential employers. One secures job sites for students in the fields of business and distributive education; the other finds positions for students in agriculture, health occupations, and trade and industry. A teacher-coordinator is also available to deal with the problems of students while they are in the cooperative program.

The city of Buffalo conducted cooperative programs in which coordinators and job developers worked together. The coordinators described to the job developers the types of jobs needed, after which the job developers consulted their list of available positions. Together they placed the students into the appropriate work experience stations, taking into account both the individual needs of the students and the requirements of the jobs.

Several cooperative programs were structured to provide students with a variety of work experiences in a particular field. In Livingston, Steuben, Wyoming BOCES, for example, distributive education students were assigned to varying types of retail establishments, including a supermarket, a drugstore, and a women's clothing shop, in order to provide them with intensified training in several marketing areas of retailing. Food service students spent 5 weeks working in several component school cafeterias. Child care students spent 3 days a week receiving a variety of training experiences at a State school and hospital, a nursery school, several central schools, and a day care center.

Last year the State Education Department conducted an indepth survey designed to obtain a current inventory of information concerning work experience programs. Although the survey collected information on all types of work experience programs, data on cooperative work experience programs will be summarized as a separate category. The questionnaires, which were sent to all chief school officers, contained sections on identification and classification of programs, program characteristics, administration, and coordination and instruction. A report summarizing the results of the survey will be available during the 1974-75 school year.

- Goal: Provide secondary occupational education students with the basis for continuing their occupational education at post-secondary institutions.

Objective

Increase the number of occupational education curriculums articulated locally between secondary and post-secondary institutions.

Increase the number of secondary occupational education graduates who continue their post-secondary education.

Accomplishment

According to the followup section of the Reporting and Evaluation System for Occupational Education (RESOE) 21,459 of the June 1973 graduates of secondary occupational education programs enrolled in post-secondary programs.

Description

Articulation between secondary and post-secondary programs continued to increase during the past year. Twenty-one BOCES area centers and the cities of New York and Syracuse reported that articulated programs were already in existence. Six other centers and the city of Albany indicated that plans had been made for cooperation with post-secondary institutions in the near future.

The purposes for articulation continued to be: eliminating expensive duplication of services, equipment, and faculty; facilitating the enrollment of secondary level occupational education program graduates in post-secondary institutions; and assuring that all persons in a region in need of training are provided programs by the agency best suited to meeting their needs.

A common form of articulation last year was coordination of programs to eliminate duplication of subject matter and to produce sequential course content. Six BOCES area centers and the cities of Buffalo and New York indicated that they had participated with nearby 2-year colleges in coordinating programs. These efforts resulted in: elimination of courses duplicated between agencies, revision of curriculum materials, and development of courses previously not offered by either type of institution.

Eleven BOCES centers reported articulation of programs by sharing of facilities, equipment, and instructors with post-secondary institutions. Nassau County BOCES, for example, utilized facilities of the animal husbandry program at Farmingdale Agricultural and Technical College for certain summer exploratory programs for handicapped children. Discussions have been held on utilizing these facilities for the BOCES large animal programs. The biological sciences division of this college, in turn, used the small laboratory animal facilities at the BOCES to provide experiences for students enrolled in its animal sciences programs.

The facilities of Hamilton, Fulton, Montgomery BOCES were used after regular school hours by Fulton-Montgomery Community College for new programs in auto mechanics, conservation, building trades, and food service. Teachers from the BOCES provided some of the instruction in these programs. Students who graduated from these programs and continued in these areas at the college received 6 hours of credit.

Eight other BOCES reported offering programs for which graduates received either college credits or advanced standing at post-secondary institutions. The Dutchess County BOCES credit transfer arrangement with Dutchess Community College was typical of this type of articulation. Graduates from the BOCES nursing program were able to receive up to nine credits at the college if they passed the State licensure examination and received their teachers' recommendations. Students transferring from the BOCES office practice and data processing programs to the college's secretarial science and data processing programs were granted college credits based on their performance on proficiency tests.

The programs which were most commonly articulated last year were: data processing, food services, drafting, machine shop, nursing, auto mechanics, and construction. Seventeen of the area centers and major cities reported articulation of more than a single program.

- Goal: Encourage youth to participate in student organizations which foster leadership abilities.

Objective

Increase membership in youth organizations which promote leadership and service activities.

Accomplishment

Total membership in youth organizations increased by 2,839 during fiscal year 1974 to a total of 22,443. This overall growth can probably be attributed to increased activities at the local, regional, and State levels and to continued support of youth organizations by administrators and teachers. Each of the individual clubs, with the exception of FHA, also experienced growth in enrollments. The membership in each club was as follows:

DECNY	4,486
FBLA	2,431
FFA	5,557
FHA	2,444
VICA	7,525

Description

In the fall of 1973, semester-long inservice leadership training for teachers was conducted by the New York University School of Education for the purpose of improving the quality of youth leadership programs. Twenty-four occupational educators who were interested in becoming youth organization advisors or who wished to improve their existing youth organization programs participated in the course. The program provided knowledge on all aspects of developing occupational youth groups. The program focused on such topics as: the youth program's role in occupational education, the factors that affect the success of youth organizations, the government structure in youth organizations, and the role of the advisor. By means of lectures, group discussion, and individual study the participants developed an understanding of: the purposes, objectives, and activities of youth organizations; the advantages of youth organizations as an integral part of occupational education programs; the desired educational outcomes in regard to citizenship, leadership, and cooperation; and the role of youth organizations and their benefit to and impact upon the community.

Students in youth organizations received training which was designed to prepare them for assuming leadership roles in occupational, social, and civic areas. As in previous years, DECA, FFA, FHA, and VICA held a week-long, intensive leadership training program for State and district officers at Camp Oswegatchie at Croghan, New York. The topics covered in these sessions included: public and extemporaneous speaking; planning large group activities; qualities of a good leader; how to conduct a meeting; conduct, communications, and introductions; using groups; and publicity, image building, and increasing membership. FBLA held a separate training program during the summer for similar purposes. In fiscal year 1975, FBLA will be participating in the Camp Oswegatchie program.

During the summer, FFA, FHA, and VICA also held week-long leadership training programs for any member who wished to participate. Additionally, during the school year the youth organizations conducted programs for district and local officers at regional sessions. The State officers of each group met two or more times during the year for leadership training. The objective of these sessions was to prepare students to lead their organizations and to create more recognition for youth groups and occupational education by speaking at community, industrial, and educational functions.

During the spring of 1974, student and teacher representatives from each youth group attended a planning meeting for the Oswegatchie Camp Leadership Program. Participants developed a schedule of activities for the Combined Leadership Training Week, determined topics to be covered, discussed lesson emphasis, and organized cooperative efforts between the youth organizations for that week. This was the first time students had been directly involved in the planning process for leadership training week.

The youth organizations continued to increase their social and community service activities. They participated in a Bicentennial Environmental Program which is designed to improve America's social and physical environment. Students from the youth organizations worked with senior citizens, the handicapped, and the poor, and also assisted their communities in solving local problems. DECA held a statewide campaign to counter the growing problem of shoplifting. FBLA and FHA have worked closely with the March of Dimes. FFA has continued to expand its Building Our American Communities Program and has again participated in the National Safety Award Program. VICA, as well as other groups, assisted in community drives for Cancer Research and the Red Cross. By using their skills to improve their community, the students are also creating a favorable public image for occupational education.

Objective

Provide additional teachers with inservice education opportunities related to student organizations.

Accomplishment

A total of 29 teachers participated in a workshop conducted by New York University designed to strengthen their understanding and methods of working with student organizations.

Description

The objectives of the inservice program were to: describe the purpose and activities of youth organizations; explain the psychological, sociological, and economic factors related to activities in youth organizations; illustrate the advantages of youth organizations as integral parts of occupational education programs; describe the role of the advisor in youth organizations; determine the club activities which will provide the desired educational outcomes; and relate the role of the youth organizations to their impact upon the community.

The activities undertaken in the workshop included: presentations by State and local club supervisors and student youth club leaders; visits to youth groups; seminar and discussion sessions; and compilation of materials to be used as a manual of operations for youth organizations. The presentations by advisors and leaders covered financing, administration, programming, planning, and public and community relations.

A followup which occurred 4 months after the program was completed revealed that 92 percent of the participants believed that the workshop had provided adequate training for youth club administration; 76 percent had locally implemented the newly acquired ideas and procedures, and 14 percent participated in their schools' youth club activities for the first time.

- Goal: Provide guidance, counseling, placement, and follow-up services for all students, appropriate to their plans to continue their education and/or to seek employment.

Accomplishment

In order to achieve this goal efforts were made at the State and local level to ensure that students leaving school have an understanding of the occupational structure of the world of work; knowledge

of the occupational clusters appropriate to their needs, interests, and abilities, awareness of regional, statewide, and national employment opportunities; and assistance in moving effectively from school to work and/or to further education.

At the State level, implementation of a career development process was pursued through support of career education models described in the ELEMENTARY and EARLY SECONDARY section of this report. The Bureau of Guidance in the State Education Department has worked with local district personnel involved with career education models and with regional counseling groups to redefine the roles and functions of counselors. Guidance counselors were increasingly viewed as having a key role in implementation of career education concepts.

As part of a National Career Guidance Counseling and Placement project, representatives of a pilot district, Scotia-Glenville, and State Education Department personnel participated in developing a plan to implement a coordinated district-wide program to assist pupils, grades K-12, in their career development.

A statewide occupational guidance conference was conducted which focused on critical factors in career planning for the year 2000; directions currently being taken in local districts and in special projects; and effective career planning techniques and practices.

Last year several projects were funded which focused on career-related guidance activities. The Oswegatchie Valley Career Guidance Project was designed to provide comprehensive career development opportunities for students, grades 5-10, in four central schools. Inservice programs for teachers and counselors explored the application of career materials, including audiovisual resources, to the curriculum.

A Career Development model involving Corning and Savona Central Schools and Corning Community College was concerned with how the affective-cognitive influences on students' occupational lives may increase their self-awareness and decisionmaking skills. A career motivation program was developed and tested in grades 8-12 of East Aurora Central School. The program was designed to encourage student self-understanding and provide career education information. Rockland County BOCES conducted a project designed to plan a county-wide career guidance program. The project focused on needs assessment and included a questionnaire administered to students, teachers, guidance directors, and employers.

A Guidance Performance Assessment System, involving counselors from 16 cooperating school districts in the Madison, Oneida BOCES region, was developed to generate information on the effectiveness of guidance

services, with immediate emphasis on decisionmaking in career development. The counselors were involved in developing specific means of maximizing students' decisionmaking skills and integrating career goals into the counseling system and the school program.

The directors of occupational education programs in the BOCES area centers and the six major cities reported that a number of ongoing methods were used to increase student awareness of occupations and the world of work. Fourteen BOCES and each of the six major cities reported that students were provided information on occupational categories, practices, requirements, and benefits, through tours of local businesses and by presentations and lectures of business and industry representatives. Other BOCES used the services of former students, community members, and advisory groups to increase students' occupational knowledge. Guidance counselors also provided occupational orientation information to students in the home school and at the BOCES through assemblies, slide presentations, lectures, group sessions, and school and community exhibits. Students in Washington, Warren BOCES component schools, for example, were presented with an occupational orientation program at the BOCES center. Southeast Westchester County BOCES reported that each district had developed a career information center at its high school. These centers are supplied with audiovisual and other instructional materials on occupations.

Reports from the BOCES and major cities indicated several methods of increasing student awareness of regional, statewide, and national employment opportunities. Seven BOCES centers and the cities of Rochester, Buffalo, and New York had developed employer files and job directories through contacts with employers and through surveys of local businesses and industries.

Students also received employment opportunity information by presentations of employer representatives and through field trips to local businesses. Often the occupational program counselors utilized the information and services provided by the New York State Employment Service Job Data Bank and the New York State Commerce Department.

Nassau County BOCES, Washington, Warren, Hamilton, Essex BOCES, and Steuben, Allegany BOCES conducted Youth Opportunity Days at which graduating seniors were able to explore career possibilities and arrange job interviews with businesses, industries, and government.

Increasing numbers of occupational program directors reported that student placement was a regular service of the occupational program. In recognition of the need for a person with full-time placement responsibilities, Federal funds were provided last year for full support of new placement and followup personnel at Steuben, Allegany BOCES, Monroe

BOCES #1, and Broome, Tioga BOCES. Partial support was also provided for personnel employed a second year at six BOCES area centers and in the cities of Buffalo, Rochester, and Syracuse.

The duties most commonly performed by these coordinators included: preparing job directories, conducting employer surveys, improving communication between BOCES personnel and industrial leaders, conducting and supervising followup studies, and generally assisting students in moving into and progressing in the labor market.

The city of Buffalo reported the following accomplishments of the coordinator of placement and followup: updated information on area employers supplied by the Chamber of Commerce; maintained liaison with potential employers such as Federal Civil Service, Federal Bureau of Investigation, and Office of the Federal Coordinator of Apprentices; attended various trade sub-advisory committee meetings to discuss employment requirements and opportunities; and initiated a followup card system for graduates.

In Monroe County BOCES #1 the placement and followup coordinator performed the following functions: assembled a job skills planning committee; conducted a series of job skills workshops for seniors; worked with the staff and other organizations to improve placement service; and collected information affecting student employment opportunities.

The placement and followup coordinator at Steuben, Allegany BOCES was involved in the following activities last year: conducted followup studies using restructured questionnaires; contacted hundreds of personnel officers and small business owners in Steuben County and adjacent counties; prepared student information forms for the development of a computerized data bank on students and alumni; participated with area guidance counselors in the operation of a Career Day program at each center; and arranged for industrial and business job interviews for graduating seniors.

In those occupational programs which did not have a full-time placement coordinator, graduate placement was accomplished by using regular school personnel. Often instructors were effective in placing graduates as a result of their contacts with business and industrial personnel related to their subject matter specialties, and their familiarity with the skills and attitudes of individual students. Often occupational education teachers, guidance personnel, and resource people from advisory groups and employment services cooperated in providing student placement.

Federal funds were also provided last year for phase II of a project at Livingston County BOCES designed to increase the effectiveness of placement counselors through use of regionally based computerized employment data banks.

The State Education Department had planned to design and conduct two alternative pilot inservice education programs in two occupational education planning regions of the State for all guidance counselors for the purpose of affecting coordination and continuity of counseling services. These pilot projects were to be designed and conducted in conjunction with existing career education models. As the feasibility of this activity was explored, however, it became apparent that new directions would need to be pursued to accomplish this purpose. An expanded and redesigned activity to accomplish similar purposes has been included in the 1975 State Plan for Occupational Education.

Activities related to this goal were conducted through inservice programs emphasizing the critical nature of coordination and continuity of counseling services in career education programs. The program in Syracuse, for example, capitalized on the experience of those involved in the city's career education model in providing inservice education for area counselors.

- Goal: Strengthen the preparation of secondary occupational education teachers.

Objective

Increase the number of secondary occupational education teachers who participate in inservice activities.

Accomplishment

A total of 528 secondary occupational education teachers participated in 18 agricultural, business, distributive, health occupations, and interdisciplinary programs. Additionally, 22 mini workshops were conducted for 522 teachers of trade, industrial, and service education.

TITLE OF PROGRAM	LOCATION	ENROLLMENT
Agricultural Education		
Controlling Water Pollution	Cornell University	19
Dairy Cattle Nutrition	Cornell University	13
Diseases and Pests of Woody Ornamental Plants	Cornell University	12
Fundamentals of Maintenance of Tractor Hydraulic Systems	Cornell University	15
Workshop for New Teachers of Agriculture	Cornell University	29

TITLE OF PROGRAM	LOCATION	ENROLLMENT
Business Education		
Basic Concepts in Automatic Data Processing	SUNY at Albany	109
Continuous Progress Instructional Techniques in Shorthand	Pace University	40
Workshop in Office Simulations	New York University	25
Workshop in Self-Paced Instructional Strategies	SUNY at Albany	28
Distributive Education		
Individualized Instruction for Distribution and Marketing	New York University	17
New Distribution and Marketing Clusters	Syracuse University	22
Project Method for Distributive Education Teachers	SUC at Buffalo	22
Health Occupations Education		
Organization and Supervision of HOE Programs	SUNY at Stony Brook	14
Regional Inservice Institute	Albany County [illegible]ES	52
Expanding Career Horizons Health Occupations	Erie County B[illegible]	35
Health Occupations Workshop	Onondaga Count[illegible]CES	32
Interdisciplinary Programs		
Orientation of Occupational Education Teachers To The Needs of Handicapped Students	SUC at Buffalo	15
Administration of Career Oriented Youth Programs in Occupational Education	New York University	29
Trade, Industrial, and Service		
Automotive Services	Monroe County BOCES #1	20
Auto Mechanics	Monroe County BOCES #1	21
Auto Air-Conditioning	Monroe County BOCES #1	14
Auto Transmission	Monroe County BOCES #1	16
Auto Body Repair	Monroe County BOCES #1	14
Automotive Services	Rockland County BOCES	40
Automatic Transmission	Rockland County BOCES	14

TITLE OF PROGRAM	LOCATION	ENROLLMENT
Auto Electrical-Electronics	Rockland County BOCES	29
Auto Air-Conditioning	Rockland County BOCES	15
Electrical Acc. and Emission Control	Rockland County BOCES	11
Diesel Mechanics	Rockland County BOCES	15
Appliance Repair	Rockland County BOCES	23
Auto Body Repair	Rockland County BOCES	18
Welding	Broome, Delaware, Tioga County BOCES	28
Carpentry	Herkimer, Fulton, Hamilton County BOCES	36
Foods	Oswego County BOCES	30
Foods	Orange County BOCES	40
Electrical-Electronics	Cortland County BOCES	35
Cosmotology	Hamilton, Fulton, Montgomery County BOCES	28
Foods	Syracuse	26
Automotive	Nassau County BOCES	30
Cosmetology	Nassau County BOCES	18

Description

Inservice education programs offered during fiscal year 1974 tended to cluster around three common inservice objectives of teachers: knowledge of new subject matter developments; the acquisitions of new skill competencies; and the modification of teaching methodologies.

In agricultural education, inservice activities concentrated on updating subject matter and skill competencies. Specific offerings encompassed: water pollution control; dairy cattle nutrition; diagnosis and control of plant diseases; maintenance of hydraulic motor systems. While all courses included field application, participants in the hydraulic motors program were particularly fortunate in that they received part of their instruction in the industrial training facilities of two large farm equipment manufacturers.

Also offered in the field of agriculture was an intensive weekend workshop for new teachers of agriculture, particularly those from out-of-State and from other than formal teacher preparatory programs. This workshop, in addition to providing the new teachers with an opportunity to become acquainted with State and professional organization representatives, oriented the new teachers to the nature, the resources and materials, and the problems and concerns of agricultural education in the State's secondary schools.

In business education, inservice programs continued to focus on disseminating and refining promising instructional strategies: self-pacing; continuous progress; and the use of simulations. In addition, a series of five 1-day workshops were held around the State to familiarize business teachers with basic concepts in automatic data processing, as this field has increasing implications for secondary school level business instruction.

Inservice distributive education workshops addressed teaching methodology: individualizing instruction for the educationally disadvantaged; organizing merchandising instruction around the project method; and adapting and developing strategies for the career cluster emphasis of the State's new 11th grade curriculum in distribution. Fall followup of the teacher-participants indicated widespread classroom application of the methods and materials developed in the three courses as well as a number of suggestions both for viable new approaches and for the modification of strategies that proved less effective than originally anticipated.

During the academic year, health occupations teachers in various parts of the State had the opportunity, through three localized institutes, to learn about trends and developments in the health careers and home economics education fields and to participate in a problem solving colloquy with State, regional, and local health occupations leaders. Problems addressed included: evaluating students' clinical work experiences, providing for changing entry-level job skills, articulating secondary and post-secondary health occupations education curriculums, and adapting State instructional syllabi to local needs. Also in health occupations education, secondary supervisory and administrative personnel took part in a 2-week summer inservice program that addressed the problems of administering and coordinating local health occupations education programs.

Interdisciplinary inservice education had two thrusts: orienting occupational educators to handicapped students and developing skills necessary for implementing and administering career oriented youth programs in occupational education. Participants in both programs represented a mix of occupational disciplines, and evaluation has indicated that this was an asset to learning. A number of the program participants noted that the opportunity to interact with teachers of other subject areas gave added dimension to their program experiences.

Mini inservice workshops were conducted for teachers of trade, industrial, and service education to improve their skills and abilities in a particular subject area. These workshops, operated during the regular school year, had several distinguishing characteristics. In all cases, instruction was provided by volunteer industry personnel who actively participated in the sessions. Additionally, representatives of

labor provided speakers and consultants for many of the workshops. Each program was planned by a committee of teachers, thus assuring that program content was consistent with teacher needs. Some programs cut across program area lines and therefore teachers from disciplines other than trade and industry participated; home economics personnel attended the food service programs, and agricultural mechanization teachers participated in the diesel mechanics workshop.

- Goal: Expand and strengthen programs and services at the secondary level which improve consumer-homemaking skills of youth.

Objective

Increase the total number of secondary students enrolled in consumer-homemaking education.

Accomplishment

Enrollment in consumer and homemaking education was 125,307 and 124,371 for grades 7 and 8 and 9-12 respectively. The figures are lower than those previously reported; however, more accurate data were available this year, according to Basic Educational Data System personnel.

Description

During 1974, consumer-homemaking activities focused on initiating pilot projects concerned with a modular curriculum format, completing pilot projects which utilize teacher aides, and assessing the effectiveness of individualized instruction in meeting student needs.

A 3-year pilot study designed to identify contributions teacher aides can make in rural home economics classes was completed at Beaver Central School in Lewis County. The school established criteria for the selection of teacher aides as a result of their study. Recommended qualifications for aides included the ability to handle clerical tasks efficiently, to relate to both teenagers and teachers on a professional and personal basis, to readily become familiar with the many aspects of home economics education, and to adjust quickly to various teaching and learning situations. In the pilot program, the teacher aide's time was divided into five activities: completing clerical tasks; participating in classroom discussions; assisting in lesson preparation, such as purchasing groceries; helping individual students, such as the disadvantaged and handicapped; and working with Future Homemakers of America. A final evaluation revealed that the quality of the total home economics program improved during the time the aide was employed. Classes were

more organized, facilities were used to the maximum extent, students were given more individual attention, and a more interesting and productive curriculum resulted.

A pilot study in Rochester to assess the effectiveness of individualized instruction in consumer-homemaking education to meet different abilities, interests, and needs of boys and girls was completed in 1974. Of three Home Economics-2 classes taught by one teacher, a single class was selected to receive individualized instruction with the opportunity to select one of several approaches to learning. The other two groups were taught by the traditional method. All three groups, similar in cultural background, intelligence, and feelings about school covered the same subject areas. The pilot group was the only group where the method of learning subject matter was left to student choice.

The teacher organized the classroom for individualized learning, developed materials, collected the software, and became acquainted with a variety of approaches to learning. The pilot group of students showed evidence of becoming more resourceful than their control groups. They became self-motivated; for example, as assigned work was completed, students independently became involved in other work areas. The control group, however, sat and waited for a teacher assignment. Students indicated they received the same or more of the teacher's time and their grades were the same or better. They suggested that shorter educational packets would be more beneficial.

Several pilot projects were initiated to test the new modular curriculum format in consumer and homemaking education. Twenty-one sample modules for grades 7 and 8 were field tested in a variety of school systems across the State. Response to preliminary evaluation of the modular method was favorable. Teachers were impressed with aspects of the modular content such as the identification of instructional resources, development of extensive instruction plans, and the outlining of courses based on the utilization of instructional techniques. Four Buffalo Schools having diverse characteristics were selected for field testing: a low-average socio-economic community, a stable middle-class community, an inner-city, low socio-economic level community, and a peripheral location. Nineteen class sections and approximately 194 students were involved. The modules selected for testing included decorative handwork, comparing information on clothing labels, appliances for beauty, and instant sewing. Four city of Buffalo teachers field testing modules commented on the concise format and ease with which ideas could be shared. They plan to work with the city supervisor to develop inservice programs acquainting other city teachers with the new curriculum materials. Those teachers participating in the initial field test worked with the Education Department, Bureau of Home Economics Education staff during a 2-day orientation workshop and a 2-day evaluation workshop. Most teachers felt that the modular system and use of behavioral objectives increased program organization through the formulation of goals, and forced a sharpening of measurement techniques.

Objective

Increase the number of public school home economics teachers who participate in inservice activities which focus on relevant content and effective methods of teaching consumer-homemaking skills.

Accomplishment

The number of teachers participating in inservice activities increased from 1,200 in 1973 to 1,700 in 1974.

Description

Workshops and institutes for consumer-homemaking teachers focused on development and utilization of modules and upgrading skills of beginning, returned, and out-of-State trained teachers.

Workshops for home economics teachers were held in eight different locations by seven colleges. Thirty-hour courses were designed to help teachers develop skills in using the curriculum process presented at the regional institutes during fiscal year 1973. Materials from the workshops are being used at the State level to supplement field test findings and curriculum writers' work on module development. Approximately 260 teachers attended these workshops.

In addition, two urban areas, Albany and Buffalo, provided workshops for 70 teachers to strengthen skills in dealing with students living in urban areas and to develop modules and teaching materials in areas such as metrics and consumer education. The inservice workshop held in Albany, for example, focused on media, child development, consumer education, and the metric system. A media teacher had the opportunity to use 35mm cameras and made transparencies, using a variety of modules. In child development, two consultants discussed different teaching aids and techniques helpful in motivating students. Resource personnel in consumer education shared new ideas on topics such as fabric and textile care, unit pricing, and product dating. Also, a resource person updated teachers on the new terms and methods of computing change in the metric system.

An additional activity conducted during the year was the completion of the first packet of revised curriculum materials for grades 5 through 8. Thirteen curriculum team meetings were held to interpret the progress which had been made in curriculum development to administrators, guidance personnel, and teachers. Opportunities were provided for teams to begin plans for local implementation.

- Goal: Improve the quality and reduce operating costs of occupational programs through construction of permanent occupational education facilities.

Objective

Provide permanent facilities at area centers where they are needed.

Accomplishment

Funds were allocated in fiscal year 1974 for: the construction of two new occupational education facilities for the Orleans, Niagara BOCES; the construction of new facilities for the Oneida Center of the Oneida, Madison, Herkimer BOCES #1; the construction of a new facility at Genesee, Wyoming BOCES; and the purchase of land and facilities at Putnam, Westchester BOCES.

Description

The construction project for the Orleans, Niagara BOCES involves the building of two new facilities. The new facilities will enable the BOCES to serve 2,720 students in new programs in each of the seven program areas. The construction of new facilities for the Oneida Center of the Oneida, Madison, Herkimer BOCES #1 will result in approximately 1,400 students being served in the program areas of agriculture, distribution, health occupations, home economics, business, and trade and industry. Multioccupational programs for special needs students will also be developed.

At Genesee, Wyoming BOCES, 1,240 students will be enrolled in programs in each of the major program areas as a result of the construction of a new facility. The Putnam, Westchester BOCES #1 purchased a 12 acre site and building from the Elks Club. The addition of this property to the existing facilities will enable the BOCES to add new programs in the areas of agriculture, distribution, home economics, and trade and industry. Approximately 280 additional students will be served as a result of this purchase.

SECONDARY

DISADVANTAGED

- Goal: Assist disadvantaged students who need and desire occupational education to successfully complete high school and to obtain meaningful employment and/or continue their education.

Objective

Increase the number of disadvantaged students enrolled in secondary occupational education programs.

Accomplishment

In fiscal year 1974, a total of 92,200 disadvantaged students were enrolled in secondary occupational education programs: 6,799 in the BOCES centers, 76,216 in the six major cities, and 9,185 in the local education agencies. The total figure represents an increase of 3,644 in enrollment from the previous fiscal year.

Description

Increased numbers of disadvantaged students were enrolled in occupational education programs as a result of the addition and expansion of programs. Last year, 30 new programs served 2,909 disadvantaged students. Thirty-six expanded programs for the disadvantaged had an enrollment of 3,241 students.

Agencies offering occupational education continued to serve the disadvantaged by providing supplementary services to students enrolled in regular occupational programs and by developing and expanding special programs for disadvantaged students who were unable to succeed even with additional assistance and services. Efforts to serve the disadvantaged were aimed at discovering and stimulating student interest and enabling students to succeed once they had found their areas of interest.

A frequently used method of discovering student interest was to provide multioccupational exploratory courses in which students could sample several occupational areas before enrolling full-time in a program. Fifteen BOCES area centers and the cities of Rochester and Syracuse reported using this approach. These programs were frequently accompanied by special services such as individual instruction, remedial assistance, and extra guidance and counseling.

Ontario, Seneca, Wayne, Yates BOCES, for example, conducted a multi-occupational exploratory program in the areas of automotive services, agriculture, and building maintenance and construction for students who were disillusioned with school. Self-paced instruction allowed students to explore occupational areas at a comfortable pace, thereby increasing their sense of success. Instruction included information on the world of work in addition to skill development. Based on their aptitudes and interests, students were able to choose between enrolling in a work-study program, enrolling in a regular occupational program, returning to the home school, or obtaining a full-time job.

Livingston, Steuben, Wyoming BOCES provided an opportunity for disadvantaged students to explore eight different occupational areas through 5-week modules. Within these short courses students were able to gain an understanding of the occupations and to obtain basic skills. Since flexibility was stressed in the programs, credits were given on a quarterly basis, and easy access to and exit from the courses was assured. Students who experienced difficulty in the courses were assisted individually by teacher aides. As the students developed skills they had the options of terminating, enrolling in a regular 2-year occupational course, or entering a cooperative work experience program.

Programs for the disadvantaged employed special instructional techniques, organizational methods, and materials and equipment in an effort to align the courses more closely to the world of work and thereby create student interest. In New York City's Clinton "School Without Walls," occupational courses were conducted in the evenings in studios, businesses, and institutions. Within these public and private agencies students were able to learn how occupational skills are used in the "real world." Classes visited a studio, for example, where they were shown video-tape techniques under the supervision of a trained video technician. Based on their experiences in this program, the students were better prepared to select realistic occupational goals.

The city of Rochester conducted a pilot program for disadvantaged students in cooperation with a photographic equipment company. The goal of the program was to discover and motivate students, particularly females and members of minority groups, who exhibited potential for and interest in pursuing technical careers. The company offered a variety of resources, instructional aids, and communications vehicles to assist teachers, counselors, and school administrators in providing career exploration experiences to students. An important facet of the program was placement of students in jobs, ranging from skilled trades to engineering, which exposed them to actual working conditions and stimulated their interest in school and in pursuing a career. The work assignments were usually accompanied by individual career counseling.

The Syracuse schools offered a prevocational orientation program in cooperation with the Upstate Medical Center. The purpose of the program was to bring ninth grade students into closer contact with the world of work before they made definite career choices. Guidance personnel at each junior high school selected the students to be enrolled in a 2-week half-day program at the hospital. All students were tested to determine their occupational preferences and potential. Based on their areas of interests, the students were able to observe and talk to employees functioning in a variety of jobs, including technicians, secretaries, electricians, nurses, and librarians. Group and individual counseling were an integral part of this program.

In Rockland County BOCES, efforts to meet the needs of the disadvantaged included hiring a special needs coordinator. This person was responsible for: developing procedures to identify disadvantaged students; identifying specific learning impediments; monitoring student adjustment; maintaining contact with special education and occupational education representatives from local schools; and providing liaison with the families of the disadvantaged children. The basic responsibility of the coordinator was to assist both disadvantaged and handicapped students in adjusting to school and work.

Some programs for the disadvantaged were unique in that they provided instruction and services for students who had not previously had the opportunity for occupational education due to lack of classroom space, or because they previously lacked occupational goals. In Yonkers, for example, the nursing assistant program served the occupational needs of disadvantaged students in academic high schools. Students attended their home schools for one-half day and the nursing assistant program for the other half day. Classroom instruction focused on administrative duties, proper attitudes and behavior, and providing personal services for the patient. Clerical experience was provided at a local hospital and nursing home.

New York City provided training in human services for students who had not succeeded in regular academic programs. The students spent 4 days a week as human services interns, working under the employer's supervision in various service agencies such as the Red Cross, the Head Start program, and mental health clinics. Once a week the interns met with their teacher-coordinators for seminars dealing with the world of work and career opportunities.

As indicated earlier, many of the BOCES attempted to serve the disadvantaged by supplementing the regular occupational programs with special services. Last year, ten BOCES area centers reported having used this approach. The forms of extra assistance most frequently provided were: remedial instruction; orientation to working conditions

by visits to employment sites and by presentations from industrial representatives; individually selected cooperative work experience; special counseling and placement services; and individual attention in the occupational and academic programs.

Several BOCES and cities offered some form of remedial instruction to students who were lacking the basic skills necessary for success in occupational programs. The city of Rochester, for example, established and maintained a reading program designed to help students achieve reading skills needed for both academic and occupational success. At Rensselaer-Columbia BOCES the occupational education staff met with local school teachers to design courses in mathematics and English that would satisfy the needs of occupational education students with weaknesses in these areas. Oswego County BOCES established a Reading Center for occupational students who were reading below their grade level or wanted to improve their reading ability. Based on a test analysis an individual self-instructional program was developed for each participant. Students used audio-visual materials such as tapes, filmstrips, and records available at the BOCES. A teaching assistant and tutor provided assistance and monitored student progress.

Federal funds were used to support 11 projects designed to serve new segments of the disadvantaged population. The projects were conducted in the six major cities and in Nassau County BOCES. Six of the projects were for new programs and served 6,182 students; five projects served 6,875 students in expanded programs.

High priority was placed on serving disadvantaged students who could not attend regular occupational courses. The cities of Buffalo and Rochester and the Nassau County BOCES offered summer programs for the disadvantaged. Special programs conducted after regular school hours were offered by New York City, Buffalo, and Nassau County BOCES. In Buffalo's After School program, students from academic schools were provided with the opportunity to take occupational courses, and students in an occupational program were able to do makeup work or take courses which were filled to capacity during the regular school day. Occupational instruction was offered in any program in which sufficient student interest was shown.

The types of instruction provided in the programs ranged from occupational orientation to intensive skill training. Nassau County BOCES, for example, conducted a summer occupational orientation program designed to expand the participants' knowledge of career planning and to provide them with the basic skills necessary for employment. The students had the option of exploring different occupational areas or increasing their knowledge of one area. "Hands on" experiences, field trips, and counseling sessions were components of this program. In the city of Syracuse a mobile skill trainer van is used to provide students with on-the-job work experiences as part of their career education program.

The intensive skill occupational programs often employed the unit skills training approach. New York City conducted several programs using this approach, thereby enabling disadvantaged students to progress at their own pace. Two of the city's schools, for example, developed an Aerospace Education Media Reference Center for self study. Another school developed a unit skills pilot program in solid state automatic industrial controls to prepare students for jobs in the electrical and electromechanical industries.

The city of Albany provided a placement and follow-up coordinator to serve both seniors in occupational programs and high school dropouts from public and nonpublic schools. This coordinator surveyed the job market, noted employment trends, and became acquainted with the skills of students available for work. He assisted in the placement of students and instructed them in work habits and attitudes necessary for successful employment.

Federal funds were also used last year to begin development of a demonstration project in New York City between the auxiliary services to high schools program and approved private occupational schools. This program is concerned with providing occupational services to students who have difficulty adapting to the regular school setting. Training is being provided in occupational areas which are not part of the existing high school curriculum, such as dog grooming, brewing laboratory procedures, and flight dispatching. Since it is less expensive to purchase services for a small number of students than to set up a special facility, the occupational training is being conducted by private schools under contract with the State Education Department. A coordinator-counselor is responsible for the operation of this program.

Objective

Increase the number of disadvantaged students enrolled in cooperative work experience programs.

Accomplishment

A total of 4,108 disadvantaged students were enrolled in cooperative work experience programs during fiscal year 1974, an increase of 567 over the previous school year.

Description

Last year Federal funds were used to develop two new cooperative programs serving 360 students and to expand seven cooperative programs serving 1,321 students in the six major cities and in BOCES serving urban areas. In addition, 13 BOCES reported offering special cooperative programs for disadvantaged students by using State and local funds and Federal funds designated for overall secondary level program development and expansion.

A particular emphasis in the cooperative programs has been to provide motivating work experiences, which create student interest and decrease the likelihood of failure. Remedial assistance, special on-the-job supervision, and pre-employment exploratory experiences were often components of the programs.

A new program in the city of Rochester was designed to serve 60 potential dropouts in grades 9 and 10, who would otherwise have left school before having the opportunity for cooperative work experience. The students spent a half day in the home school receiving instruction in academic subjects. For the remainder of the day the students worked under supervision in specially selected jobs in the manufacturing industry. The students' progress was continually evaluated and their training adjusted accordingly. A survey conducted last year indicated that the cooperative program raised the level of satisfaction of the participants and consequently lowered the dropout rate.

Nassau County BOCES provided a summer cooperative program for 126 underachieving students between the ages of 15-18. Five occupational counseling specialists were employed for the purpose of serving as "big brothers" to the students by focusing on their individual needs. These counselors provided some pre-employment orientation, on-the-job supervision, and placement assistance.

St. Lawrence County BOCES conducted a cooperative program for students who had completed an occupational program and had developed some entry level skills, but were not really employable. The program was designed to provide a gradual transition from school to full-time employment. Program components included sheltered and semi-sheltered employment, close supervision, and a modified curriculum. Due to the success of last year's program, students in St. Lawrence and Northern Lewis Counties will have access to this type of cooperative program in fiscal year 1974-75.

New York City provided cooperative work experience opportunities for disadvantaged students in each of the major occupational areas, including some unique positions such as surgical and pediatric assisting, zoo attendant, and community outreach worker. The programs often had such features as specially selected work sites, pre-employment orientation, and on-the-job counseling. Borough coordinators were utilized, for example, to provide counseling on an individual basis to students with problems at the work site. To assure the quality of assistance provided students by school coordinators, orientation sessions were conducted after regular school hours on methods of preparing incoming students with marginal ability for placement interviews. Key personnel in cooperative programs were also able to participate in sessions conducted by a psychologist on the needs, attitudes, problems, and interests

of minority group and disadvantaged youth. A practice manual based on private sector aptitude tests was used to prepare all cooperative program students for placement interviews.

Objective

Increase the number of disadvantaged students engaged in work-study programs.

Accomplishment

A total of 2,204 disadvantaged students were enrolled in work-study programs during fiscal year 1974, an increase of approximately 700 over the previous year.

Description

Last year emphasis continued to be placed on using Federal funds to develop, expand, and improve work-study programs in urban ares. Consequently, programs were offered in the six major cities and in BOCES serving urban areas. Three new programs serving 276 students were conducted in the cities of Buffalo and Syracuse and in Nassau County BOCES. Ten expanded programs with a total enrollment of 1,928 were offered in the cities of Albany, New York, Rochester, Syracuse, and Yonkers.

Efforts were made in these programs to provide work suited to the student's occupational field and personal interests. Examples of the kinds of employment sites available to students last year included: hospitals, libraries, playgrounds, schools, rehabilitation centers, zoos, office buildings, and cultural centers. In some cases students were employed in the schools. Nassau County BOCES students, for example, served as aides in over 80 evening occupational education programs, performing such varied services as: operating visual aid equipment, assisting teachers and students, and attending tool cribs. They also served at other work stations as office aides, TV studio aides, dental clinic aides, keypunch operators, special education student aides, and commercial art aides.

Students in the work-study programs were often provided special assistance or scheduling which helped them to succeed in their occupational courses. At Erie BOCES #1, the work study was a part of an occupational skills program, which served students who were significantly behind in reading and not performing well in the occupational programs. The work-study program consisted of alternate weeks of school and work and featured small classes and work-oriented curriculums. An evaluation of this program showed that student attendance improved significantly and that over 80 percent of those completing the program were gainfully employed within 3 months.

In almost all work-study programs, students' work habits and attitudes essential for success in the world of work improved. The trainees often profited from the suggestions of experienced co-workers on the application of classroom instruction to practical job situations. And finally, success on the job served as a stimulus for greater interest in the instructional programs.

Objective

Additional institutions preparing home economics teachers will explore new approaches to assisting senior students in better understanding the needs of the disadvantaged, and ways of teaching consumer-homemaking education more effectively to this target group.

Accomplishment

Preservice programs focusing on methods of teaching consumer-homemaking education to disadvantaged students were conducted at New York University, Syracuse University, and State University College at Oneonta.

Description

Twenty students in home economics education at New York University were assigned to work with former drug addicts at Day Top Village, which is one of a series of locations designed to rehabilitate youth and return them to independent living. Home Economics students working in teams assisted youth with information in consumer education, budgeting, and nutrition, and helped them locate and settle into apartments. This project, evaluated as highly beneficial to both prospective teachers and disadvantaged youth, will be continued in 1975.

A 1-day seminar, field trips, and classroom demonstrations by specialists helped 22 students at State University College at Oneonta increase their understanding of the characteristics, behavior patterns, and special educational requirements of disadvantaged learners at various grade levels. Participants discussed educational and economic problems experienced by some minority groups, plus various methods of handling individual student needs. Presentations and group discussions were taped for use in future seminars.

At Syracuse University, 25 students participated in activities to provide interaction with individuals and groups representing diversified segments of the population. Students maintained journals, were assigned readings, viewed and reacted to films, held discussions with speakers representing neighborhood and community service agencies, visited schools, and spent a weekend with neighborhood families. As a result,

students were better able to recognize the needs of the target population and realize the importance of consumer education in the community. A follow-up session is planned for December 1974 to better measure the impact of the workshop.

SECONDARY

HANDICAPPED

o Goal: Provide opportunities for handicapped secondary students who require special programs or services in order to succeed in occupational education.

Objective

Increase the number of handicapped students served by occupational education at the secondary level.

Accomplishment

A total of 8,066 handicapped students were reported to be enrolled in occupational education programs during 1973-74; 1,481 were in the BOCES, 5,777 in the six major cities, and 808 in the local educational agencies. The total enrollment represents a decrease of 309 students from the numbers reported in 1972-73.

Description

New and expanded programs served 4,010 handicapped secondary students; 40 new programs served 2,290 students and 16 expanded programs served 1,720 students.

Many new programs were designed specifically to integrate handicapped students into regular occupational education programs whenever possible. Deaf students, for example, were easily placed in the regular curriculum with the assistance of instructors trained in special education communications. The Oneida County BOCES #1 enrolled students from the School for the Deaf in Rome, New York in a wide variety of courses including landscaping, welding, and office machine operation. Transportation to and from the occupational center was provided. An occupational education coordinator was employed to assist students and teachers with language problems and to correlate the academic program in the School for the Deaf with the occupational program. The coordinator also provided inservice training to teachers serving deaf students, and is currently developing a work experience section of the program. A very similar type of program containing most of the same components was expanded by Monroe County BOCES #1. Another activity designed to serve deaf students took place in the city of Buffalo. The St.

Mary's School for the Deaf conducted an inservice program for occupational teachers which provided instruction in sign language to allow better communications between student and teacher. With this assistance, teachers were able to serve deaf students in regular occupational education programs.

A typical new program for handicapped students was divided into phases beginning with multioccupational exploratory experiences and progressing to the enrollment of the handicapped in regular programs. At the Livingston, Steuben, Wyoming BOCES, for example, 15 mentally retarded students began a program with eight units of multioccupational study including tools and equipment, carpentry, painting, basic electricity, metal working, plumbing and heating, landscaping, and small engine repair. Each unit closely paralleled the one taught in the regular curriculum. After completing 1 year of the program, students were able to transfer into regular occupational courses in the fields in which they have demonstrated interest and aptitude. Some students not ready for integration into the regular curriculum will continue the exploratory phase for another year.

Suffolk County BOCES #2 offered a three phase program for handicapped youth. Students were exposed to various occupational fields and received career orientation, followed by actual hands on experiences in occupational education clusters, including masonry, metal work, plastics, graphics, photography, wood construction, and textile and fabrication. The final phase of the program was placement in a regular occupational program according to student choice and ability. Those students who were not capable of entering phase three were assisted in entering community employment or employment in sheltered workshops. Ninety students with various learning disabilities at the Dutchess County BOCES were enrolled in a similar program. The prevocational exploratory phase acquainted students with machine and metal, printing, small engine repair, and construction trades. Students proceeded at their own pace on a flexible schedule, and were allowed to enter a regular program upon successful completion of the initial portion of their training. A special education teacher was utilized to assist the occupational education teacher in conducting the program.

An occupational training and counseling program established by the Nassau County BOCES prepared 120 handicapped secondary youth to enter regular classes. The beginning phase consisted of seven 1 week units, each containing five laboratory classes in various occupational fields, three related work experience sessions, one counseling session, and a field trip for career information purposes. In the second phase, which will be conducted in 1974-75, special counseling services for those students who have enrolled in regular occupational education programs will be maintained.

The Chautauqua County BOCES reported that the multioccupational approach was a very successful way of serving the handicapped. It allowed staff to carefully evaluate student strengths and weaknesses in various occupational areas prior to making recommendations for placement into regular occupational classes and/or work experience programs.

Work experience and on-the-job training were incorporated into occupational programs for the handicapped, enabling students to adjust gradually to the demands of a real employment situation. In Nassau County an occupational specialist was employed to assess the occupational potentials of students, evaluate possible jobs within industry, recommend appropriate occupational training, and place students in part-time work experience. An 8-week summer program, also at Nassau County BOCES, helped 30 mentally retarded and emotionally disturbed students obtain job related experience. Five hours a day, 5 days per week, enrollees worked on school grounds and buildings. A work experience coordinator located jobs and placed students at the completion of their training.

A work training program in health services, food services, building maintenance, and ornamental horticulture was offered by the Saratoga, Warren BOCES. The program provided school-based instruction plus practical work experience utilizing the facilities of public nonprofit institutions. Mentally handicapped youth were prepared for permanent employment in such positions as laundress, counter supply clerk, greenskeeper, and custodian.

A program in its second year at the St. Lawrence County BOCES utilized a cooperative education coordinator to make arrangements with local employers for a half day of on-the-job training for mentally handicapped students. Employment and training was provided at nine local industries, volunteer organizations, and sheltered workshops. On the basis of a comprehensive diagnostic work evaluation, the coordinator made recommendations for students to either receive additional training or enter full-time employment. Followup studies of those who completed the program will be conducted for 2 to 3 years to determine the immediate and long range effects of the program.

A work experience program conducted by the city of Yonkers served 20 educable mentally retarded and emotionally disturbed secondary youth. Instruction was in floral design and included both indoor and outdoor work in such areas as soil preparation, planting, propagation of plant materials, use of fertilizers and pesticides, and customer relations. Students spent a portion of their time in field locations receiving on-the-job work experience.

As mentioned in some of the examples above, separate work experience coordinators were often employed, or teachers assigned to coordinate placement activities in order to facilitate students' transition from school to employment. A coordinator in the Genesee, Wyoming BOCES located suitable work stations, provided students with information concerning the world of work, supervised the students receiving work experience, and conducted followup studies of employed program completees.

A unique type of program combining exploratory experiences and work experience was conducted by the Putnam, Westchester BOCES #1. Over 100 trainable mentally retarded youth were served in a school building which was converted into a simulated community environment containing a supermarket, factory, department store, restaurant, medical office, and ranch home. Occupational education teachers specializing in trade, industrial, and service education, distributive education, and health occupations education provided instruction for such jobs as building maintenance person, shipping and receiving clerk, salad chef, and housekeeper. An occupational counselor was available to offer supportive services.

Special services to further assist handicapped students in succeeding in occupational education programs and ultimate employment were initiated during the year. A special placement counselor at the Nassau County BOCES was employed to serve physically and mentally handicapped students exclusively. The counselor maintained liaison with local employers and kept students aware of job opportunities. The city of Rochester implemented a program of individualized occupational evaluation, guidance, and instruction related to occupational education programs. Intensive counseling is maintained throughout a student's school experience.

A supportive service particularly for physically handicapped secondary students was provided by New York City. More than 300 youth received training in independent travel to various occupational facilities. A project coordinator oriented and trained five teacher trainers and 20 paraprofessionals. The personnel provided small group travel training, counseling for parents and pupils, and workshops in parent education, and developed travel-related curriculum. Cooperation was maintained with occupational agencies in preparing youth for travel to employment.

Several occupational education area centers reported that they had renovated facilities in order to make them more accessible to the physically disabled. A new structure built to house occupational programs in Herkimer County incorporated design features particularly convenient for handicapped persons confined to wheelchairs, such as gently sloping ramps rather than stairs, few doors, and large open spaces.

Reports from area centers demonstrate that many short in-service programs were conducted for occupational education teachers instructing the handicapped. As mentioned elsewhere in this description, teachers were assisted in such areas as communications, sign language, learning disabilities, and special equipment and services used in skill training programs for handicapped students.

Objective

Provide special inservice programs for occupational teachers who work with handicapped secondary students.

Accomplishment

An inservice education program for teachers of the handicapped was conducted by State University College at Buffalo.

Description

Twenty teachers participated in a 3-week workshop designed to orient them to the occupational needs of the handicapped. The programs covered such topics as: establishing the needs of the handicapped; understanding the educational problems confronting the handicapped in secondary public schools; establishing sound educational objectives for the handicapped; evaluating the needs of the handicapped in occupational education programs; adapting the occupational education program to meet the needs of the handicapped; developing a long range occupational education program for the handicapped; understanding the problems of the handicapped in industry; preparing and using occupational information which meets the needs of the handicapped; and evaluating the use of educational techniques and instructional media when working with the handicapped.

The format of the daily workshop consisted of general sessions in which presentations were made by the workshop director and other persons with expertise in particular areas, followed by question and answer periods. The teachers also participated in individual or group work sessions and prepared assignments on special topics. Emphasis was placed on achieving individual goals and on sharing the results of each participant's work. Visits were made to occupational training facilities for the handicapped including: Buffalo Veterans Administration Hospital, Niagara Frontier Vocational Rehabilitation Center, Buffalo Association for the Blind, and Goodwill Industries.

Measures used for evaluating the workshop were: a pre-test and post-test of workshop members based on the objectives of the programs; student evaluation of the sessions; and examination of the accomplishments of the goals session by session.

POST-SECONDARY

GENERAL

- Goal: Diversify and expand program offerings to serve increasing numbers who need and desire occupational education at the post-secondary level.

Objective

The total number of full-time degree and nondegree students in occupational education at public 2-year colleges will increase.

Accomplishment

Full-time enrollment in degree and nondegree occupational education programs at public 2-year colleges increased from 64,621 in 1972-73, to 74,197 in 1973-74.

Description

During 1973-74, post-secondary occupational education projects supported fully or in part under VEA provided new and improved programs and services to more than 24,000 students enrolled in the 44 public 2-year colleges and eight educational opportunity centers in the State. Supported activities provided for the initiation of new degree and certificate curriculums at the State's public 2-year colleges, and for the expansion and improvement of numerous ongoing curriculums in each of the seven major occupational clusters. Also in accordance with State Plan priorities, funding support enabled these colleges to strengthen and expand their capabilities in the ancillary functions of occupational guidance, counseling, and job placement. Providing a bridge between these latter activities and colleges' instructional programs are the developmental skills and remedial programs which were implemented and improved at several campuses. With the advent of open admissions and full opportunity at public higher education institutions, the need has become evident to provide reinforcement in the basic skills to enable students who lack adequate preparation to enter post-secondary occupational education programs, and to enhance their chances of success in these programs. The improvement of comprehension and basic math skills constitutes the central thrust on the part of growing numbers of colleges in their efforts to combat the persistent problem of attrition in occupational programs due to academic reasons.

New, improved, and expanded post-secondary associate degree programs serving 19,700 students received support under VEA during fiscal year 1974. Degree curriculums offered for the first time were retail business management, recreation supervision, electromechanical technology, supermarket merchandising and management, radiologic-radiotherapy technology, child development, dietetic technology, and human services. Degree courses were expanded in distributive education, agricultural science, natural resources conservation, graphic arts production, human services, architectural design, electronics, instrumentation and manufacturing processes, secretarial science, child care, mortuary science, jewelry design, machine design, electrical technology, environmental technology, civil technology, and others. A total of 30 occupational curriculums received support for expansion involving over 5,700 students.

Most new curriculums offered for the first time during fiscal year 1974 in which VEA support was furnished were of the certificate type. These courses of study provided intensive skill training, employing a highly activity-oriented method of instruction. Nineteen new certificate programs were started, enrolling 620 post-secondary students. Examples of these are child care, television and radio repair, air-conditioning, refrigeration and machinists, oil burner repair, automotive services, construction trades, drafting, sheet metal fabrication, offset lithography, industrial laboratory assistant, welding, food service, and natural resources conservation.

Expanded certificate courses of study in which support was provided include retailing, clinical laboratory assistant, licensed practical nursing, residential plumbing, automotive mechanics, basic electronics, mental health aide, educational aide, automatic data processing, typing and keypunching, secretarial and clerical, optometric assistant, and health services aide. Over 5,600 students were enrolled in these expanded post-secondary certificate programs.

In one representative project involving associate degree programs, Dutchess Community College received support for the development of core curriculum materials for the engineering technologies. This project involves the preparation of instructional materials for new freshman courses leading to sophomore options in electromechanical systems technology, electrical technology, and mechanical design technology. The common core year is planned to offer improved educational and economic benefits through the use of modern instructional techniques and consolidation of courses and instructors. A new educational process will be employed in which the basic concepts of mathematics and physics are integrated within all technical courses through the use of interdisciplinary applications. Other innovations include the use of unified concepts and integrated topics; modular courses; the development and use of behavioral objectives; and materials for self-paced individualized instruction.

New and Expanded Post-Secondary Programs and Enrollments

Fiscal Year 1974

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Conservation	1	2	25	420
Total Agriculture	1	2	25	420
DISTRIBUTIVE EDUCATION				
Apparel and Accessories		1		400
Food Distribution	1		60	
General Merchandising, General Sales, or Sales Supporting	1	2	60	46
Recreation and Tourism	1		25	
Total Distributive Education	3	3	145	446
HEALTH				
Dental Hygiene		2		156
Medical Laboratory		2		40
Nursing, Associate Degree		2		424
Nursing, Licensed Practical		1		48
Medical Therapy Assisting		1		50
Radiological Technology	1	2	33	82
Mortuary Science		1		30
Health Related Technology		1		75
Other Health		4		595
Total Health	1	16	33	1,500
HOME ECONOMICS (Occupational)				
Care and Guidance of Children	1	3	50	255
Food Management, Production, and Services	2		50	
Total Home Economics	3	3	100	255

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
BUSINESS AND OFFICE EDUCATION				
Bookkeeping and Accounting		3		1,400
Data Processing		1		30
General Office - Clerical and Typewriting		5		991
Stenographic, Secretarial, and Related Occupations		8		3,355
Supervisory and Administrative Management	2	1	86	50
Total Business and Office	2	18	86	5,826
TECHNICAL EDUCATION				
Automotive Technology		1		326
Chemical Technology		1		23
Civil Technology		1		125
Electrical Technology		1		20
Electronic Technology		3		405
Electromechanical Technology	1		60	
Environmental Control Technology		1		60
Instrumentation Technology		2		120
Mechanical Technology		1		80
Total Technical	1	11	60	1,159
TRADE, INDUSTRIAL, AND SERVICE				
Prevocational	1	1	80	35
Air-Conditioning, Refrigeration, and Heating	3		109	
Automotive Services	2	2	55	278
Commercial Arts Occupations		1		125
Construction and Maintenance Trades	2	2	55	175
Drafting	1		20	
Electrical Occupations		1		125
Electronics	1	1	15	46
Graphic Arts	1		20	
Machine and Metal Industries	2		40	
Social Service Paraprofessionals	1	2	22	160
Educational Paraprofessionals	1	1	80	200
Textile Production and Fabrication		2		260
Pretechnical		2		264
Other Trade and Industry	1	2	40	33
Total Trade, Industrial, and Service	16	17	536	1,701
TOTAL ALL PROGRAMS	27	70	985	11,307

Another significant project involved development of an articulated Licensed Practical Nurse-Associate Degree Nursing Program at Tompkins-Cortland Community College. This program enables its students to receive training in preparation for the licensing examination in practical nursing and to continue if desired without loss of time or credit to complete requirements for the associate degree in nursing. The learning experiences specified in the two curriculums rely heavily on audiovisual materials to be used in autotutorial learning sequences, and form as well an integral part of group instruction.

The following paragraphs describe the impact of VEA support on the certificate level programs of a single 2-year college during 1973-74. Additional descriptions of 2-year college programs funded through VEA during 1973-74 are contained in the Highlights of Model and Exceptional Programs section of this report.

Mohawk Valley Community College made use of VEA assistance to develop a range of certificate program offerings at its occupational education center in Rome, New York. Certificate programs in offset lithography, welding, sheet metal fabrication, and oil burner repair were designed to furnish intensive skill training to underemployed and unemployed persons. While each program received initial funding during the current fiscal year based on studies of employment needs and student demand, the results in placing students convinced the college of the need for continuation of these program efforts, and each is now fully supported in the college budget for the coming school year.

The offset lithography program had been designed to provide occupational skills that would allow students to qualify for entry-level positions in the field of printing. However, it was found that of the 18 students who registered for the program, 12 students were classified as underemployed, presently working as cleanup men in local printing shops. A recent survey indicated that there was a need in the service area to update the knowledge and skills of a large number of persons who are now employed in the field of printing, and, because of their lack of updated skills, can be classed as underemployed. Another objective of the program was to provide students with the educational background required to enroll in more advanced educational programs in the field. Five students have indicated that they now intend to pursue the degree program in advertising design and production at the college. The program has met the objectives originally developed in the proposal, and the program will be offered on a full-time basis beginning in the fall of 1974. Complete financial support has been provided for the program in the college budget for the academic year 1974-75.

A certificate program in welding was developed to provide needed occupational education programs to meet the needs of the college's sponsorship area. The program was designed to provide students with a marketable occupational skill leading to employment immediately

following completion. In addition, it was designed to provide those persons now employed in the field with training to update their skills in the field of welding. It was found that the format of the program, which was essentially laboratory-oriented, was extremely successful. The majority of the 19 students who registered for the program had obtained sufficient skills for entry-level positions while only half-way through the program. All of the students who completed the program are now employed and one student has opened his own welding shop in Syracuse, New York.

While the program was designed to provide students the opportunity to obtain certain occupational skills, the program also provided the educational background necessary to allow the student to enroll in more advanced programs at the college. Several of the students have indicated the desire to continue their education in the field of mechanical technology. The success of the program warrants offering the program on a full-time basis. The program will be offered in the fall and the financial support required has been provided for in the regular college operating budget.

There has existed in the Utica area a shortage of qualified sheet metal fabricators who possess the knowledge and skills necessary to act as small independent contractors or to work for small independent contractors. The great majority of sheet metal fabricators in this area are now employed by large construction companies and are usually working on large construction projects. The program attracted those students for whom the college had established the program, mainly veterans, the unemployed, and the underemployed members of the community. All students who completed the program are now employed. In addition, the college has a waiting list for students who wish to enroll in the program in the fall of 1974. Through the counseling process, students who have completed the sheet metal fabrication program have been made aware of the program in welding, and the degree program in mechanical technology. Several have indicated that they plan to enroll in one of these programs. The program has been scheduled on a full-time basis for the fall of 1974 and full financial support has been provided for the program in the college budget for the academic year 1974-75.

The oil burner repair program was designed to prepare qualified repairmen to meet a serious shortage of such persons in the area. That there was a need for such a program was reflected by the large number of students who wished to enroll. Of approximately 40 applications, the program could only enroll 21 because it could only provide work stations for 20 students in the laboratory. Local oil and heating companies have indicated their interest in the program by providing certain equipment and supplies to the college without cost to insure that students received instruction on the latest heating equipment available. All students in the program were offered employment in the field before the program was completed. There still remains a heavy demand for skilled automatic heating repairmen, and

the college will continue to offer the program on a full-time basis. The program will receive complete financial support in the college budget for the academic year 1974-75.

Many of the students who have completed this program are now enrolled in the Associate in Occupational Studies program for electrician service technicians to complete the air-conditioning and refrigeration degree program now offered by the college. With the addition of this program, students can now receive a complete program in the field of heating and air-conditioning.

The 1974 State Plan also provided for three special activities designed to enhance the State's total program of post-secondary occupational education. Two of these activities were undertaken by the Cornell Institute for Research and Development in Occupational Education.

The first phase of a curriculum development process was completed and will be instituted at four community colleges during 1974-75. The project completed during the current year resulted in the preparation of a format for a systematic process in the development of occupational education curriculums in 2-year colleges.

A second project conducted by the Cornell Institute resulted in the completion of a study to assess the effectiveness of 2-year college associate degree nursing programs, and to identify criteria for evaluating and strengthening existing ADN programs. The final report will also be used to determine appropriate funding support strategies based in part on local evaluations as well as on student performance on the annual State Board Test Pool Examination for Registered Nurse Licensure.

A third special activity identified in the State Plan provided for changes where needed in recruitment methods and other institutional practices in order to encourage interested and qualified women and men to enroll and succeed in occupational education programs which in the past have primarily served either men or women only. A project to reduce or eliminate stereotypes in occupational courses was undertaken by Dutchess Community College. Recruitment was performed by students representing several programs at the college who toured secondary agencies informing seniors of employment opportunities and educational requirements in a wide variety of occupational fields. An important facet of this recruitment effort was the reliance placed upon students to encourage seniors to consider employment and training opportunities afforded them on the basis of their interests and abilities rather than the customary stereotypes usually associated with certain occupational fields.

Objective

Increasing numbers of 2-year public college students in a wide range of occupational programs will engage in work experiences coordinated with their academic experience.

Accomplishment

The number of 2-year public college students engaged in cooperative education programs increased from 1,978 in 1972-73 to 3,994 in 1973-74.

Description

During 1973-74, VEA assistance enabled additional occupational students at 2-year colleges to engage in work experiences alternating with oncampus classroom instruction in related academic areas. Colleges which received VEA support for cooperative education during the year were: Genesee Community College, in business education; Clinton Community College, for the planning of cooperative education in the business field; Orange Community College, for development of cooperative education in the retailing area of distributive education; and Schenectady Community College, for a diversified cooperative program. The colleges implementing or expanding cooperative programs reported a total of 684 students engaged in work experiences related to their occupational courses of study.

Schenectady Community College received a grant for the continued development of a cooperative education program for all full-time students enrolled in career degree programs at the college. All full time students in the programs of accounting, business administration, electrical technology, hotel technology, human services, police science, and secretarial science--numbering over 500--spend either March, April, and May, or June, July, and August in full-time work experience assignments in each of their 2 years of study at the college. Since the diversified cooperative program has only been in operation since 1973, it is too early for a formal evaluation to be completed. However, Schenectady Community College lists the following advantages of the program to students, college, and employers: to students--gives reality to learning, increases educational motivation, develops greater human understanding, accelerates maturation, provides orientation to the working world, provides financial aid, provides useful employment contacts; to the college--encourages greater community support, provides contacts for teaching faculty with business, industry and professions, permits greater use of facilities; to employer--provides a good source of labor supply, facilitates recruitment and retention, permits better utilization of personnel, and enables industry to become a partner in education.

Objective

The number of students attending private trade and business schools will increase.

Accomplishment

The number of students attending private trade and business schools increased from 84,134 in 1971-72 to 86,288 in 1972-73, the most recent year for which data are available. The enrollment breakdown is 71,088 in private trade schools and 15,200 in private business schools.

Description

During 1973-74, the State Education Department began licensing and registering proprietary occupational schools under the new, strengthened regulations developed to carry out the provisions of sections 5001, 5002, 5003, and 5004 of the Education Law, enacted by the Legislature in 1972.

- Goal: Increase the number of students who begin and successfully complete post-secondary occupational education programs.

Objective

The number of students successfully completing degree and nondegree programs in occupational education at public 2-year colleges will increase.

Accomplishment

In the fall of 1973, the 2-year public colleges reported a total of 18,706 persons completing degree and nondegree programs in occupational education during the previous academic year. Adjusted to reflect completions at four 2-year colleges which failed to submit followup reports for 1972-73, the total would be slightly in excess of the 20,000 completions reported in the 1973 Annual Report.

Description

In recent years a variety of measures have been supported to increase the number and percentage of occupational education students who successfully complete their programs at 2-year public colleges and educational opportunity centers. These have included: improvement and expansion of occupational guidance and counseling services; increased utilization of developmental skills programs in reading and mathematics; and greater emphasis within inservice education on personal and interpersonal relationships, humanistic education, guidance and counseling, achievement motivation, and innovative instructional techniques and technologies.

Major emphasis during the 1973-74 academic year was on the development, acquisition, and use of improved instructional materials, combined with a more widespread use of educational technology. Increased emphasis is being placed on providing for an instructional mix enabling students to engage in self-paced or individualized instructional programs, often utilizing modular designed learning materials in their occupational courses. The increasing utilization of audiovisual materials in occupational programs and their demonstrated effectiveness in a growing number of instances have resulted in additional efforts on the part of 2-year college occupational instructors to integrate the use of instructional technology into their programs. A number of projects were started in fiscal year 1974 which had as their objective, the acquisition, development, and utilization of audiovisual materials for both group and self-paced individualized instruction. Most of the materials which were developed or acquired during the year were focused on subject matter which students experienced difficulty in mastering, and which usually resulted in high failure and attrition rates. Materials were developed in subject areas of business mathematics, technical physics, surveying, accounting, typewriting and shorthand, nursing, radiographic techniques in dental hygiene, environmental technology, anatomy and physiology for nursing students, medical laboratory technology, and electromedical technology.

Support was also provided at Kingsborough Community College for the utilization of workbooks and audio and video tapes, constituting a bilingual language package, to provide students preparing to become nurses and educational assistants with the capability of working more effectively with both Spanish-speaking and English-speaking persons.

Further descriptions of programs and services designed to promote successful completion of post-secondary occupational education are included below under the post-secondary objectives relating to guidance, inservice education, and the disadvantaged.

- Goal: Improve articulation between secondary and post-secondary occupational education programs.

Objective

The number of occupational education curriculums articulated locally between secondary and post-secondary institutions will increase.

Accomplishment

During 1973-74, four public 2-year colleges received funding for the specific purpose of articulating their programs with local BOCES programs.

Description

New programs utilizing BOCES laboratories were undertaken in natural resources conservation, automotive technology, food services, and construction trades at Fulton-Montgomery Community College; and industrial laboratory testing and radio broadcasting at Adirondack Community College. Dutchess Community College received support for a career information center which will serve the local BOCES and LEA's as well. Auburn Community College received a grant for the planning of certificate programs in electrical trades, machine trades, welding, drafting, and electronics, and Corning Community College in the planning of an automotive technology program.

- Goal: Strengthen the preparation of occupational education teaching staffs at 2-year public colleges.

Objective

Additional post-secondary occupational education teachers will be engaged in inservice education programs.

Accomplishment

Inservice education projects conducted during fiscal year 1974 involved 369 faculty and staff members of 2-year colleges in workshops and summer institutes.

Description

Fashion Institute of Technology conducted workshops for 30 faculty and staff members to train them for leadership roles as the college undertakes the introduction of concepts of career education among its faculty and students. Staff members from over forty 2-year colleges attended a series of programs conducted by the Two-Year College Student Personnel Development Center of the State University of New York at Albany. Workshops and conferences were devoted to the topics of: developmental skills programs for disadvantaged students; the expanding role of women in occupations; occupational decisionmaking; 2-year college interface with business, industry and the community; teaching counseling courses; and ways to improve total staff involvement in occupational counseling. Emphasis of the program was placed on updating occupational counselor competency in 2-year colleges.

A summer institute at Rochester Institute of Technology was attended by 13 counselors from 2-year colleges and BOCES centers. Workshops were conducted involving local and State business and industry representatives who discussed needs and training requirements in the major occupational fields. Participants of the workshops were also instructed in ways to conduct manpower studies and informed on trends in occupational manpower forecasting techniques.

- Goal: Provide adequate guidance, counseling, placement, and followup services for all post-secondary occupational education students.

Accomplishment

During 1973-74 occupational guidance, counseling, and job placement projects serving over 2,200 students were funded at fifteen 2-year colleges.

Description

Through these projects, students were given assistance in decision-making relative to selecting careers, selecting appropriate occupational courses of study, and obtaining employment. Students were also provided information on student financial assistance programs, and furnished with improved occupational education counseling prior to enrollment in 2-year college programs.

Outreach occupational guidance and counseling services were provided by two community colleges to inmates at correctional institutions. Prevocational training, academic advisement, and occupational counseling were offered to over 460 inmates who were confined in correctional institutions as well as to some inmates pursuing courses in an educational release program. Group advisement and career information classes were conducted for "high risk" students at four 2-year colleges. Coordinated by the Institute for Research and Development Center in Occupational Education at City University, class sessions were structured and outcomes evaluated by the Center. Students were selected by the participating colleges on the basis of their academic performances, uncertainty as to career interests and aptitudes, and their expressed desire for counseling assistance in choosing occupational programs.

Other post-secondary projects which received funding to establish and improve occupational counseling services include new career counseling centers at four 2-year colleges and the expansion of counseling and job placement services at six others. The Veterans Occupational Counseling and Guidance Center at LaGuardia Community College served over 270 post-Vietnam-era veterans in selecting occupational programs, including the referral of some to other institutions where programs desired were not offered at LaGuardia.

Tompkins-Cortland Community College utilized VEA assistance in establishing a career counseling center. During the two preceeding academic years, over 470 entering students requested and received occupational counseling assistance from members of the staff in the College's Office of Student Affairs. The increased demand for occupational counseling assistance by the students is reflected by the fact that 55 percent of the fall 1972 entering class of 239 students indicated during their orientation that they desired counseling

assistance regarding their occupational plans and information on career opportunities.

The Career Counseling Center was established under VEA to improve services in occupational counseling for both regular day students and adults, by offering 1) credit bearing courses in occupational exploration, 2) noncredit short-term occupational seminars, 3) identification of resource information and personnel in the community, 4) incorporation of career awareness into a variety of courses offered within the college, and 5) information collection and dissemination on long range employment possibilities in the local and regional area served by the college.

Also in the area of occupational counseling during the academic year 1973-74, the Two-Year College Student Development Center at State University of New York at Albany conducted six statewide workshops to assist 2-year colleges and educational opportunity centers in New York State in developing total institutional commitment for the improvement of occupational counseling programs.

One workshop was entitled Developmental Studies: Building a Survival Program for the Unprepared Student. This workshop treated the following major issues and objectives: initiating developmental studies programs; diagnosis and prescription; subject matter skills; counseling components--People's College, Life Skills, self-concepts; occupational education plan making for students; occupational program evaluation processes.

A second workshop focused on the Expanding Role of Women: What's Happening for Women in Education in New York State. This workshop examined the major issues inherent in the question, "What should and can be happening in increased occupational opportunities for women?" Component issues were: day care, counseling services, women's programming, health services, community outreach, affirmative action legislation, and the Education Amendments of 1972.

Making Occupational Decisions was a workshop designed to heighten the sensitivity of practitioners toward the maze of occupational choices facing students today. Sessions are conducted to help provide professionals with updated techniques and new materials useful in occupational decisionmaking.

A fourth workshop--Expanding Occupational Horizons: Interfacing the College and the Community Positively--explored the advantages of 2-year colleges interfacing with business, industry, social service agencies, educational agencies, and other organizations. Also, the workshop identified the advantages of mutual cooperation in times of declining enrollments and fiscal accountability.

A workshop on Teaching Counseling Courses: New Roles for Counselors, explored and examined new roles for counselors in terms of teaching occupationally-oriented counseling courses. Specific examples of courses, plus methodology, were among the major items discussed and illustrated.

Staff for Today: Developing Educational Delivery Systems Addressed to Individual Learner Needs, was designed to increase participant interest in staff development activities for providing improved occupational education. The primary focus was on developing strategies to combine counselors, teaching faculty, administrators, and other professional staff efforts for maximum gains by students.

POST-SECONDARY

DISADVANTAGED

- Goal: Serve educationally and financially disadvantaged students who need and desire occupational education beyond high school.

Objective

The number of disadvantaged students enrolled in degree and nondegree post-secondary occupational education programs will increase.

Accomplishment

The number of disadvantaged students enrolled in degree and nondegree post-secondary occupational education programs increased from 5,317 in 1972-74 to 5,503 in 1973-74, according to data provided by the 2-year public colleges.

Description

New special training programs for disadvantaged students were initiated in child care, retailing, secretarial studies, electronics, mental health aide, pretechnical, textile production and fabrication, plumbing, heating, and pipefitting, among others.

At Dutchess Community College, a 1-year certificate program in residential child care offered in cooperation with the Institute for Child Mental Health began with the inservice training of supervisors and administrators in child care agencies. Following this initial phase, instruction and training of child care aides designed to lead to increasing levels of responsibility were provided.

Fashion Institute of Technology recruited both disadvantaged students and high school dropouts for a 1-year "Taste of College" program. Students were counseled and following this were enrolled in at least one of the college's specialized occupational courses with the goal of motivating them to complete their high school equivalency and to pursue post-secondary education in the field of fashion. Following the first term's work, these students were then expected to add to their course load with special emphasis on those fashion courses involving laboratory and hands-on activities.

At New York City Community College special recruitment efforts were undertaken which succeeded in enrolling significant numbers of ex-inmates into two new 1-year certificate programs in radio and television repair, and air-conditioning, refrigeration, and machinists

trades. Close cooperation took place between the college and ex-offender organizations to recruit, counsel, and perform job placement functions to assist students during their period of training and upon completion of the 800 hours of instruction required for each of the courses.

While colleges remain alert in responding to special training needs for selected population groups such as the disadvantaged, frequently providing opportunities through short-term certificate programs such as the above, most disadvantaged and minority group members currently are integrated into regular occupational courses where they are provided specialized assistance whenever needed. This may take the form of special instructional materials used in an autotutorial individualized mode of instruction, special counseling assistance, and, increasingly, the development of basic skills reinforcement and remedial type programs.

Objective

The number of disadvantaged students successfully completing degree and nondegree occupational education programs will increase.

Accomplishment

During 1973-74, according to reports from the 2-year public colleges, 779 disadvantaged students successfully completed degree and nondegree occupational programs, as opposed to 853 in 1972-73. The apparent decrease results from the failure of some institutions to report completion data regarding disadvantaged students.

Description

Projects for the improvement of basic skills of occupational students were conducted during the year at seven 2-year colleges. At Westchester Community College a remedial math laboratory was established for students in business and engineering technology programs. A similar laboratory to combat high failure rates in math among occupational students was provided at Erie Community College. Both installations make use of A-V materials and equipment as well as tutorial and staff assistance. Results are closely monitored and documented to provide for future program modification.

The Adult Learning Center at Bronx Community College was funded to provide remediation in reading, computation, and writing skills for students enrolled in the college's extension division occupational programs. Developmental skills programs for educationally disadvantaged students were undertaken also at Hostos Community College, Fashion Institute of Technology, and Delhi Agricultural and Technical

College. The Delhi program is described in detail in the Highlights of Model and Exceptional Programs section of this report.

A broader program of developmental skills is in the planning stage at Erie Community College and will be implemented in the fall of 1974. Another program of this nature was planned also during the year at Jefferson Community College.

POST-SECONDARY

HANDICAPPED

- Goal: Provide opportunities for handicapped post-secondary students who require special services or programs in order to succeed in occupational education.

Objective

The number of handicapped students served in occupational programs at public 2-year colleges will increase.

Accomplishment

The number of handicapped students served in occupational programs at public 2-year colleges increased from 401 in 1972-73 to 590 in 1973-74.

Description

Physically handicapped students received job placement services in a new program started at Farmingdale Agricultural and Technical College. A summer orientation program consisting of course work, specialized counseling, mobility training, and study skills training was continued at Queensborough Community College. Twenty students accepted into occupational programs at Queensborough and other community colleges were given special assistance and training to better prepare them for entry into full-time degree programs starting in the fall semester. Close cooperation and support is maintained on a year-round basis between the colleges and the Commission on the Visually Handicapped through local representatives and with various city-based agencies which serve the visually handicapped.

LaGuardia Community College conducted a typing and keypunching training program for physically handicapped adults. Special devices were furnished each trainee, depending upon the nature of the disability, to achieve a minimum typing rate of 45 words per minute, and to perform routine office and clerical tasks required for employment.

A statewide conference and workshop dealing with the special needs and problems encountered by handicapped students in 2-year colleges was organized and conducted by the Institute for Research and Development in Occupational Education of the City University of New York.

In attendance were 78 participants representing 23 community colleges, 20 of which sent two or more representatives to this workshop; the State Office of Vocational Rehabilitation; New York State Department of Labor, Manpower Services Division; Department of Health, Education, and Welfare; Human Resources Services Agency; The President's Commission on Employment of the Handicapped; Veterans Administration; Rusk Institute; and the Institute of Rehabilitative Medicine in New York. Included among the participants also were seven disabled 2-year college students who led one workshop session devoted to sensitizing the workshop audience to the needs of the handicapped. Other workshops dwelt on the incoming student--with topics on outreach, program planning, and orientation strategies; on-campus support dealing with the physical and counseling needs of handicapped students; and a third major workshop on ways to assist the graduating student in job placement.

ADULT

GENERAL

- Goal: Serve adults who seek training or retraining for employability, advancement, job security, or mobility.

Objective

Increase the number of adults served by occupational education programs.

Accomplishment

Adult enrollments increased by 10,209 during the past year, reaching a total of 157,107. Of this number, 29,638 adults were enrolled in the BOCES centers, 68,998 in the major cities, 14,939 in the local secondary schools, and 43,532 in the 2-year public colleges.

Description

During fiscal year 1974, adult occupational education programs continued to be initiated, expanded, and improved. In secondary agencies, 77 new programs served 4,112 adults, and 81 expanded programs served 5,009 adults. The following table shows a further breakdown of new and expanded adult programs and enrollments in secondary agencies.

New and Expanded Adult Programs and Enrollments
Fiscal Year 1974

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Agriculture Mechanics		2		60
Ornamental Horticulture		1		32
Total Agriculture		3		92

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
DISTRIBUTION				
Finance and Credit		1		15
General Merchandising, General Sales, or Sales Supporting	1	1	10	200
Hotel and Lodging	2		40	
Total Distribution	3	2	50	215
HEALTH				
Dental Assisting	2	2	30	65
Nursing, Licensed Practical	2	4	64	115
Nurse Assisting	8	13	166	734
Home Health Assisting			1	24
Medical Assisting			1	60
Other Health	1	20	2	65
Total Health	13	39	264	1,063
HOME ECONOMICS				
Care and Guidance of Children		1		25
Clothing Management, Production, and Services		2		60
Food Management, Production, and Services	3	2	145	125
Institutional and Home Management	1		30	
Other, Occupational Preparation	2	4	76	1,453
Total Home Economics	6	9	251	1,663
BUSINESS AND OFFICE				
Bookkeeping and Accounting	6		140	
Data Processing	3	2	80	95
General Office - Clerical and Typewriting	1	4	20	180
Stenographic, Secretarial, and Related Occupations	5		130	
Supervisory and Administrative Management	1		20	
Total Business and Office	16	6	390	275

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
TECHNICAL				
Other Technical	1		56	
Total Technical	1		56	
TRADE, INDUSTRIAL, AND SERVICE				
Air Conditioning, Refrigeration, and Heating	2		42	
Appliance Repair	1		15	
Automotive Services	9	7	235	430
Construction and Maintenance Trades	6	6	167	542
Custodial Services	1		55	
Electrical Occupations	4	2	62	27
Graphic Arts		1		120
Machine and Metal Industries	5	4	210	555
Personal Services	3		90	
Photography Occupations	2	1	40	15
Prevocational	1		70	
Quantity Food Occupations	2	1	1,055	12
Textile Production and Fabrication	2		1,060	
Total Trade, Industrial, and Service	38	22	3,101	1,701
TOTAL ALL PROGRAMS	77	81	4,112	5,009

Additionally, the public 2-year colleges served 2,767 adults through 10 new and 9 expanded programs.

Many programs were introduced and expanded in order to assure that educational opportunities remain consistent with the needs of business, industry, and labor. The following brief descriptions are examples of programs developed throughout the State in response to particular area employment needs. The Orange County BOCES initiated a teller training program at the request of the Mid-Hudson Chapter of the American Institute of Banking for the purpose of upgrading persons already employed in the banking field. The BOCES also conducted a tractor-trailer operation program to satisfy the needs of the Middletown Department of Public Works for licensed drivers. A nurse aide training program was conducted by the Clinton, Essex BOCES in cooperation with the Champlain Valley Physicians Hospital Medical Center after staff of both agencies developed appropriate curriculum content to benefit the Medical Center as well as the students. A new section of food services was added to the adult program at the Schuyler, Chemung, Tioga BOCES in response to many requests from local cafeterias.

Several summer skills programs were started at Erie BOCES #1 to accommodate employment needs in the area for machinists, welders, and keypunch operators. A certificate program in sheet metal fabrication offered by Mohawk Valley Community College was designed to fill a need for qualified fabricators. The program has received much student interest, and many program completees have indicated a desire to continue their education in related post-secondary programs. Mohawk Valley Community College also established a certificate program in oil burner repair to meet the local need for personnel in this field. Oil burner and heating companies provided certain equipment and supplies to the college without cost to ensure that students received instruction with the use of up-to-date materials. All 21 students enrolled in the program were offered employment prior to program completion.

Certain new programs were introduced in order to make training in new and emerging occupations available to adults. New York City, for example, created a program in color television studio and communications techniques to prepare students to obtain a first class Federal Communications Commission license; and to qualify for entry-level employment as color television camera operators, radio and television technicians, and mobile communications technicians. The City of Buffalo established a new program for 20 adults in aquatic ecology which was planned cooperatively by educational agencies, local industries, the State Department of Health, and municipal water and sewage departments. Students received instruction in basic ecological theories and their application to water resources, identification and measurement of pollutants, and the effects of pollution or aquatic ecosystems. Program completees are qualified for entry-level positions as environmental health aides or technicians. Arrangements have been made with local colleges to accommodate adults who wish to pursue further study in this occupational field. A new program designed to provide adults with training in modern methods of processing and fabricating plastics was offered by Erie County BOCES #2. In consultation with the Society of Plastics Industries, instructional content was developed encompassing both theoretical and practical aspects of plastics manufacture.

One particular field where there has been a growing need for trained personnel in recent years is health services. New programs designed to train adults for positions as licensed practical nurses were started at Madison, Oneida BOCES: Schuyler, Chemung BOCES; Ulster County BOCES; Oswego County BOCES; and Suffolk County BOCES #1. Additional programs were introduced to provide supplementary training for those already employed as licensed practical nurses. Suffolk County BOCES #1 and Steuben, Allegany BOCES, for example, developed programs in pharmacology. Students became acquainted with techniques of preparing and measuring drugs, the effects of drugs on various systems in the body, and regulations associated with prescribing and dispensing drugs. Surgical nursing and emergency room care training

were other specialty areas included in new programs for the LPN. LaGuardia Community College expanded a certificate program for employed nurses to receive training for positions in hospital coronary care units. Curriculum content included electrocardiology, urology, and cardiology care.

As in previous years programs to provide related instruction for apprentices continued to be developed in cooperation with labor unions. The Cayuga County BOCES offered a building construction program for apprentices at the request of the local building trades union; Tompkins, Seneca, Tioga BOCES provided job related instruction for bricklaying apprentices; a welding course for operating engineers and a program for carpentry apprentices were established by the Orange County BOCES; the City of Rochester created a model graphic arts program to provide pre-apprenticeship training in lithography; in response to the local carpenters union, Steuben, Allegany BOCES offered 144 hours of instruction in carpentry and 40 hours in welding for apprentices; facilities and instruction were furnished by the Orleans, Niagara BOCES for three apprenticeship programs in automatic equipment repair, toolmaking, and electricity; Delaware, Chenango, Madison, Otsego BOCES introduced a program in blueprint reading to upgrade carpentry journeymen to positions as foremen; in conjunction with local labor unions the city of New York initiated apprenticeship programs in wiring and installation of cable-vision, pipefitting, and electricity.

To avoid course duplication and assure that appropriate related instruction is continually available to apprentices in the area, Westchester County BOCES #2 has been designated to act as a certifying and reporting agency for Westchester and Putnam Counties. In addition to serving as a central repository for apprenticeship records, they ultimately will be responsible for supervising educational programs of any union or school offering related instruction to apprentices.

To serve the needs of individuals in the community as well as large industries and labor unions, programs were offered in occupational fields to interest self-employed persons. The Lewis, Jefferson BOCES, for example, accommodated self-employed persons in small gas engine, welding, carpentry, cement block construction, auto body, and tailoring. New York City Community College offered a program for minority group operators of small businesses. Students enrolled in the program were counseled by the State Office of Minority Business Enterprise, and four business development organizations: Brooklyn Local Economic Development Corporation, Interracial Council for Business Opportunity, Capital Formation, and National Puerto Rican Forum. The program content included material on development and organization of business, legal aspects of business, risks and insurance, financing, taxes, accounting, customer and personnel relations, and advertising and sales promotion. A similar course in conjunction with local business development organizations was conducted at Hostos Community College and served a predominantly Spanish-speaking clientele.

During fiscal year 1974, emphasis was placed on increasing activities designed to enhance the quality of occupational education programs and services for adults. The guidance, counseling, placement, and followup program specifically for adult enrollees has been greatly expanded in recent years. Most occupational education centers have reported that walk in counseling services were offered more frequently to meet the needs of adults with varying time schedules. Erie County BOCES #1 reported that guidance services were provided by three counselors responsible for assisting adults with personal, educational, and occupational problems, as well as selecting appropriate job training or available employment in the Buffalo area.

New York City attempted to coordinate all available guidance services to adults through interagency guidance conferences. Outreach programs to placement agencies were developed in order to provide adequate counseling services in all areas of the city.

Guidance services for Nassau County BOCES were greatly strengthened during fiscal year 1974. Along with an increase in staff, significant developments were made in the areas of career guidance, occupational testing, and responsiveness to the Spanish speaking. Concurrently, ties were strengthened with counselors from cooperative agencies so that the most complete services possible could be provided for students with special needs. Questionnaires pertinent to the needs of business and labor organizations have been planned and are now in the process of being developed. They will be mailed to these organizations so that the counselors will be better able to identify employment opportunities.

Orange County BOCES organized a counseling and placement office where interviews were conducted with adult students seeking employment or occupational training information. Employers in Orange County were informed of the adult occupational education offerings and the agency's source of potential trained employees. Inquiries from employers for personnel were received during the year, and adults were informed of the existing opportunities. Subsequently, interested students were referred to employers with job openings.

Flexibility in scheduling program offerings for adults has been increased through the initiation and modification of special curriculums. At the Washington, Warren, Hamilton, Essex BOCES modules of instruction were expanded to include mechanical drawing, architectural drawing, technical math, applied physics, construction estimating, metallurgy, and welding. Adults including apprentices attended a trade theory course one night per week, and a related trade course offering another evening. Through the use of modular scheduling, adults have been able to choose from a greater number of occupational programs and related courses, and complete their training in a shorter period of time. Another example of a change in curriculum to meet the diverse needs of adults was the creation of short-term programs in the city of

Rochester. During the second semester in 1974, 6-week "mini" courses were offered in several occupational fields. These courses were well received and contributed toward a 3 percent increase in total occupational education enrollment during the year. The Nassau County BOCES reported that 12 curriculum guides for the adult learner were developed during the year. Attention was given to performance objectives, time frames, materials and equipment needs, audiovisual bibliographies, student activities, and individual instruction.

Cooperative arrangements were maintained between local BOCES and public 2-year community colleges to utilize all resources and facilities to the fullest extent. The Chautauqua County BOCES offered all adult programs in cooperation with Jamestown Community College. The total adult program at the Rensselaer, Columbia BOCES continued to be operated in cooperation with Columbia, Greene Community College. The college handled all administrative details including enrollments and advertising, and employed instructors. Occupational education center facilities and equipment were used to conduct the programs. A total of 67 different adult courses in several occupational fields were conducted under the joint sponsorship of the Orange County BOCES and Orange County Community College. The BOCES and community colleges issued special certificates for adult students completing a series of courses constituting a unified program of study.

Toward the development of organizational structures for more comprehensive adult occupational education programs, VEA funds were allocated in fiscal year 1974 to employ a full-time coordinator at the Onondaga, Madison BOCES, and to provide partial support for coordinators at 23 other BOCES. Funds were provided for a full-time administrator and three full-time guidance counselors at the Adult Occupational Education Center of the Nassau County BOCES. The center now offers a full range of occupational instruction, guidance, and support services. Such procedures as walk-in service for interviews, continuous admission to programs, and a year-round schedule permit the center to be flexible and serve the needs of all adults.

A project director, project coordinator, and four assistant coordinators were funded in New York City to ensure that the adult program operates efficiently and derives the maximum amount of benefit from all public and private agencies concerned with occupational education in the city. Some accomplishments of the adult coordinating unit this past year include: development of a master directory covering adult services in the city, creation of central referral services for out-of-school youth and adults, consolidation of site use among agencies for more cost-effective operation, reduction of duplicative services, and the initiation of indepth studies and evaluations of major adult programs.

- Goal: Strengthen preparation of adult occupational education teachers.

Objective

Increased numbers of adult occupational education teachers will participate in an inservice activity each year.

Accomplishment

During fiscal year 1974, four regional inservice programs served 305 teachers and administrators of adult occupational education programs.

Description

Based on the planning and implementation of previous inservice education programs, projects were extended and/or expanded in regions where comprehensive long range plans had been made to meet the needs of teachers of adult occupational education.

The sponsoring agencies for the four federally funded, regional projects carried out in fiscal year 1974 were Dutchess County BOCES, Monroe County BOCES, Nassau County BOCES, and New York City.

In the Dutchess County BOCES program, a total of 25 instructors of adults from Dutchess and Ulster Counties participated, representing the occupational fields of trade, industrial, and service education, and health occupations education. The instructional content of the program focused on teaching techniques and evaluation. A method of instruction utilizing videotape proved to be very successful. Four participants presented brief sample units of instruction which were filmed on videotape, and then evaluated by the entire group. A second videotape was made of the evaluation procedure to be used in research as well as in the planning of future inservice activities.

Monroe County BOCES #1 conducted a 2-day weekend program for 170 teachers of adults in Monroe, Livingston, Genesee, Wyoming, Ontario, Seneca, and Yates counties. The content of the program was comprised of four concurrent sessions: What Makes A Successful Adult Education Teacher; Classroom Teaching Aids; Day/Evening Cooperation--Facilities, Equipment, Materials, etc.; and Implications of Career Education. Following these sessions, participants gathered into the special interest groups of auto trades, building trades, business, food service, personal services, and mechanical trades to discuss related problems and possible solutions.

A third program sponsored by the Nassau County BOCES involved 45 persons actively engaged in a trade or business who were interested in immediate or future employment as occupational education instructors. Two courses consisting of twenty 3-hour sessions were conducted during the 1973-74 school year. Behavioral objectives for the subject matter to be covered in each session were formulated to include instruction in: employment information and skills requirements, operation of audiovisual equipment, course organization and content development, lesson presentation, methods of testing and evaluation, and classroom and student management.

The training program in New York City was conducted in three sections of 15 sessions each. Seventy teachers from all boroughs in the city participated. Instruction concentrated on the development of lesson plans, the use of visual aids, testing instruments, employment counseling for adults, and evaluation techniques. Course participants were involved in the development of course materials, presentations followed by group evaluation, and discussion sessions dealing with a variety of educational and employment problems experienced by adult students.

In addition to the inservice programs carried out during the fiscal year, progress was made in the development of a curriculum guide for inservice education. Education Department staff concerned with programs for adult occupational education teachers participated in a planning session and recommendations were made on a proposed outline for future action to be taken in fiscal year 1975.

ADULT

DISADVANTAGED

- Goal: Serve disadvantaged adults, including out-of-school youth, with particular attention to areas which have severe problems of unemployment, underemployment, and high school dropout rates.

Objective

Increase the number of disadvantaged adults enrolled in occupational education programs.

Accomplishment

The number of disadvantaged adults reported as enrolled in occupational education programs totaled 15,263 in 1974, about 500 fewer than those reported in the previous year. Of this number, 1,436 were in the BOCES area centers, 8,322 in the six major cities, 570 in the local schools, 4,935 in the public 2-year colleges and educational opportunity centers.

Description

In the BOCES area centers, six major cities, and local educational agencies, eight new programs were initiated to serve 795 disadvantaged adults and 2,123 adults were served through the expansion of 13 existing programs. In addition, the public 2-year colleges served 1,290 students through seven new and eight expanded programs.

As in previous years, new and expanded programs in fiscal year 1974 focused on serving segments of the adult population in need, such as: high school dropouts and out-of-school youth, the unemployed and underemployed, and special groups of persons including migrants, veterans, and persons formerly institutionalized. The selection of occupational fields for new programs was most often based on employment demands of local businesses and industries.

The city of Rochester expanded a program to serve 100 high school dropouts. Fifteen houses, basically sound but in need of renovation, served as work sites for occupational training of disadvantaged young adults. Certified instructors taught occupational subjects as well as mathematics and English at the work site. Advisors were provided by local plumbing, carpentry, and electrical unions, and an occupational specialist was available to assist in job placement for program completees. Students participating in this program also were given the

opportunity to earn a high school equivalency diploma. Monroe County BOCES #1 conducted a similar program to serve 120 out-of-school youth.

The St. Lawrence County BOCES continued a pilot program for disadvantaged adults, particularly out-of-school youth. Instruction included such topics as employer-employee relations, completing applications, labor laws, income tax, and social security. The program was designed to increase the employability of individuals to enable them to secure and retain full-time employment.

A series of programs were developed during the year for special groups of adults entering the job market for the first time or reentering the labor force. For example, occupational instruction was provided by the Nassau County BOCES at the new Albertson Center for over 700 disadvantaged adults including high school dropouts, former drug addicts, former prisoners, veterans, and women seeking to return to work. A year-round program of day and evening classes provided skill training in the areas of health services, office occupations, and trade and industrial education. The Nassau County BOCES also provided a special program for 30 rehabilitated drug addicts. Intensive occupational training was given in the fields of welding, carpentry, clerical occupations, masonry, auto mechanics, and auto body repair. Students received a minimum of 100 hours of training supplemented by instructional seminars conducted by county and State narcotic agencies.

A program developed by the Orleans, Niagara BOCES offered occupational education to inmates of the Albion Correctional Institution. Theory and shop training in the areas of auto mechanics, auto body repair, electricity, small engine repair, and carpentry were provided. Inmates were able to receive supplemental on-the-job experience which was made available at the correctional institution. Another program located at the Orleans, Niagara BOCES was conducted for 45 disadvantaged adult residents of the Iroquois Narcotics Rehabilitation Center. At the request of this Center, training for entry-level positions in the areas of building maintenance, machine operator, welding, and distributive occupations was offered. The rehabilitation center transported students to the Orleans Area center 2 evenings per week for 3-hour classes.

Another group of disadvantaged adults experiencing employment problems are migrant workers. Thousands of interstate workers and their families migrate into New York State for seasonal farm work yearly. Of this group, about 10 percent remain in New York State after the harvest period and are in need of other employment. The State University College at Geneseo continued a project designed to meet the needs of this group of persons. An interstate occupational training program has been under way in cooperation with Florida and Texas to provide pilot instructional programs. Mobile units were utilized in Newark and Geneva, offering training in building skills,

use and repair of agricultural equipment, and truck driving. Programs are now being planned in the fields of child care and health services to begin in fiscal year 1975. The Genesee, Wyoming County BOCES conducted a program to serve 60 adult migrants. This program was exploratory in nature and allowed students to become acquainted with the latest farm equipment, welding techniques, and the procedural processes in auto service.

Flexible scheduling, necessary to programs for adults, was an important part of program development for the disadvantaged. New York City, for example, operated a program for disadvantaged adults in office occupations to meet a shortage of workers in the New York City metropolitan area. Classes were organized on a 2-hour per day, twice a week basis and were offered at many diverse hours to serve the varying needs of trainees. Typewriting, keypunching, bookkeeping machines operation, and stenography were taught at both basic and advanced levels so that participants would be prepared for entry-level jobs or advancement in employment.

The city of Albany expanded a successful program in practical nurse training which incorporated scheduling arrangements convenient for employed nurse's aides and orderlies. The program was established to meet a need for trained personnel in the nursing field, and to allow hospital staff the opportunity to learn the necessary skills for promotional opportunities without leaving their present positions. The students received instruction at the Albany Medical Center and were granted leave time twice a week by three participating hospitals in order to attend classes. All program completees thus far have been promoted within their respective hospitals.

The following brief descriptions are examples of additional efforts to provide convenient program schedules for adults. At the St. Lawrence County BOCES, adult programs were developed in blocks or units of 4 semesters, 2 years in length. This arrangement permitted remedial as well as intermediate and advanced classes to be scheduled as students progressed. Washington, Warren, Hamilton, Essex BOCES placed students in programs according to individual needs during the school day, late afternoon, or Saturdays. Satellite centers were operated in seven locations of Dutchess County to provide greater flexibility and make programs more accessible to the adult population. The Westchester County BOCES #2 provided flexibility and increased the use of facilities by offering adult classes daily between 3 and 5 p.m.

Several 2-year community colleges developed programs to upgrade the skills of underemployed adults. Farmingdale Agricultural and Technical College, for example, established a new program to train family day care aides. This program, planned jointly by the County Division of Social Services and the Educational Opportunity Center at Farmingdale, was designed to upgrade the skills of employed child care workers, most of whom were members of minority groups seeking improved

Buffalo, for example, advertisements through the local media and community meetings appraised residents of the many occupational education offerings for adults. Meetings with minority groups were held to encourage and promote services available to the disadvantaged, and television and radio announcements by Buffalo occupational personnel were made. As a result of the numbers responding, a special class was organized in electrical trades, and automotive classes were established to prepare women for careers in collision shops and filling stations.

- Goal: Assist out-of-school youth and adults living in economically depressed urban and rural areas in improving their knowledge and skills as consumers, homemakers, and family members.

Objective

Increase the number of adults served by consumer-homemaking education including those served by the comprehensive consumer-homemaking programs in economically depressed areas.

Accomplishment

According to most recent data, a total of 70,311 adults were enrolled in consumer and homemaking programs in 1974, as compared with 76,584 reported in the previous Annual Report. This decrease most likely results from more accurate data collection. Of this total, approximately 41,535 were disadvantaged.

Description

Short-term programs were added and continued to serve disadvantaged persons in both urban and rural areas of the State. In addition to seven ongoing programs, new short-term programs were conducted at Franklin County BOCES; Madison, Oneida BOCES; Fulton,Montgomery BOCES; Oswego County BOCES; Unatego Central School; St. Lawrence State Hospital; and Westbury Public Schools. The target population included retired farmers, widows, senior citizens, Mexican-Americans, Puerto Ricans, patients of a State hospital undergoing mental rehabilitation, adult basic education students, and participants of drug rehabilitation programs.

The short-term programs were characterized by independent but sequential sessions scheduled periodically for a block of time. Topics for sessions were selected according to the particular group being served and included geriatric nutrition, diet therapy and weight control, preparing low cost meals, coping with the energy crisis, unit pricing, purchasing automobiles, electrical fire safety, first aid procedures, and personal relationships.

job status. Instruction was provided in six decentralized locations to accommodate students. A new certificate program in welding at Mohawk Valley Community College was developed to meet the needs of local industries as well as to update the skills of persons already employed in the field. The format of the program, essentially laboratory-oriented, proved to be successful. In addition to providing skills necessary for certain jobs, the program also provided the educational background necessary to allow interested students to enroll in more advanced courses at the college. Several students indicated the desire to continue their education in the field of mechanical technology.

Support services in occupational education programs for disadvantaged adults were expanded. Bilingual education for adults enrolled in occupational programs was added to many curriculums. The city of Rochester developed bilingual program components for Spanish-speaking adults in the areas of health occupations, construction trades, machine trades, electrical trades, graphic metal trades, business occupations, and personal services. One particular program in practical nurse training offered Spanish-speaking adults clinical laboratory experience concurrent with classroom work in nursing, plus remedial assistance in reading and communication.

Remedial services for disadvantaged adults were often a necessary part of the occupational education program. The Adult Learning Center at Bronx Community College provided remedial reading, computation, and writing skills for students enrolled in the college's extension division occupational programs. Developmental skills programs for educationally disadvantaged students were undertaken also at Hostos Community College, Fashion Institute of Technology, and at Delhi Agricultural and Technical College. A broad program of developmental skills is in the planning stages at Erie Community College.

Guidance services for the disadvantaged population as well as the general adult population were expanded and improved. At the Nassau County BOCES, the Hempstead and Albertson Adult Centers operated a policy of "walk-in" interviews without appointment, and continuous admission to programs, allowing students training without delay. Outreach occupational guidance and counseling services were provided by two community colleges to inmates at correctional institutions. Prevocational training, academic advisement, and occupational counseling were offered to over 460 inmates confined to institutions, as well as some inmates pursuing courses in an educational release program. LaGuardia Community College operated a veterans occupational counseling and guidance center and assisted over 270 post Vietnam-era veterans in selecting occupational programs. Referrals also were made to institutions offering programs not available at LaGuardia.

To reach the greatest possible number of adults in need of training or retraining for employment, recruitment procedures and public relations efforts have been made throughout the State. In the city of

A short-term program was conducted in Suffolk County, for example, to serve low income residents of Amityville. Recruitment procedures were developed in cooperation with social services agencies, adult basic education staff, and cooperative extension staff. Evening sessions were conducted in the home economics department of a local junior high school for approximately 40 adults. Participants worked on clothing construction, prepared low cost meals, and studied tips on purchasing various products or equipment items. Administrative staff evaluating the program reported that attendance was excellent and student enthusiasm was maintained throughout the program.

A program initiated at St. Lawrence State Hospital served almost 150 inpatients and outpatients in a short-term program. The patients participating were emotionally and mentally handicapped as well as economically disadvantaged. Basic living skills, two sections per day for 3 months, were taught to enable students to be more productive and worthwhile members of their present or future foster homes. Use of leisure time was emphasized to give handicapped persons skills and interests in a daily activity.

In Nassau County, a project in Roslyn served 140 persons representing four target groups: senior citizens, adult basic education students, persons using English as a second language, and low income families. Special emphasis was placed on nutrition, food preparation, health problems, good consumer practices, and identifying helpful community agencies. Three times per week for a total of 5 hours, classes met to discuss topics such as credit buying, consumer fraud, immigration and identification of local governmental agencies, banking, and thrift shopping. The low income families met weekly for twelve 2 1/2-hour sessions. The major subjects were meal preparation, skills needed for household repairs, and clothing construction. The advisory committee composed of administrators of the Roslyn Public School, adult basic education teachers, and community service agencies met frequently to discuss concerns and program offerings.

Comprehensive consumer-homemaking programs were expanded and strengthened in 40 locations throughout the State. Disadvantaged adults attended walk-in centers in various locations such as housing projects, storefronts, community centers, church activity centers, apartments, and mobile units. Outreach components of the comprehensive programs continued within the community at health clinics, laundromats, senior citizen centers, shopping malls, State hospital day care and rehabilitation centers, and sheltered workshops.

Consumer education programs, for example, were offered to inmates of a correctional institution in Nassau County. Sessions were structured to assist inmates in handling consumer problems as they prepared for their return to society. Topics of discussion included, credit purchasing, the use of small claims court, landlord and tenant relations, purchasing used automobiles, completing tax forms, consumer legislation,

and cooperative apartment buying. A guest speaker for one session reviewed some of the problems persons with prison records may need to deal with in the business world. Since this program was physically located at a Nassau County BOCES adult education center, inmates have been assisted in selecting occupational skill training courses.

A consumer education project for disadvantaged adults served 434 persons in the Herkimer County BOCES area. The instructional program was taken to the community and many classes were held in a "mobile van" which moved from one rural area to another. Child care services were provided for pre-school children by employment of child care program graduates. Topics of discussion focused on foods, clothing, installment buying, and health care problems. Instruction through additional outreach components was also provided to low income public housing residents and senior citizen groups.

The Onondaga BOCES project located in four rural and nonrural areas of the county provided classes in consumerism for low income families. The project teams, consisting of a teacher, teacher aide, and a child care aide, conducted programs in donated church community centers. The programs focused on learnings that related to child development, budgeting, consumerism, nutrition, home repair, health concerns, and sewing for the family and home. A supervised child care center was also provided for children attending with parents. Volunteers were used as resource persons in special areas such as wills and other legal concerns.

Curriculum publications, Promoting Program Participation and Tips on Food Purchasing, were prepared for adult consumer-homemaking programs and distributed to all comprehensive centers. Tips on Purchasing Clothes has been completed and is now in the process of being printed for a fall 1974 distribution.

Objective

Increase the number of professional and paraprofessional staff from comprehensive adult consumer-homemaking centers who participate in in-service activities which focus on identifying effective ways of working with the disadvantaged.

Accomplishment

A 2-day institute was conducted in Albany, New York under the leadership of the Cornell Institute for Research and Development in Occupational Education. A total of 64 staff members from the adult comprehensive projects attended.

Description

The consumer-homemaking institute focused on child growth and development. The program was planned to accomplish the following objectives: to help professional staff to better utilize resources available in the area of child development including the use of a child care laboratory; to provide professionals with a variety of teaching methods in the child growth field; to prepare personnel to conduct inservice programs; and to update participants' knowledge of new collection instruments, project evaluation and evaluation of adult curriculum materials.

Instructional methods used were presentations, workshop sessions, a field trip, exhibits, and informal discussion sessions. In addition to the learning experience, teachers made plans for strengthening local programs in child care and development and determined some methods of providing future inservice activities for paraprofessional staff.

ADULT

HANDICAPPED

- Goal: Provide opportunities for handicapped adults who require special services or programs in order to succeed in occupational education.

Objective

Increase the number of handicapped adults enrolled in occupational education.

Accomplishment

A total of 663 handicapped adult enrollments were reported in occupational education programs. It appears that again this year this figure reflects incomplete reporting, since during 1973-74, nine new and three expanded programs alone served more than 610 handicapped adults.

Description

Several programs were operated for residents of State hospitals so that individuals could be prepared for meaningful work in the institution and eventual independent employment. The Broome, Delaware, Tioga BOCES, for example, developed a program which operated cooperatively with the Binghamton State Hospital to train resident mental patients in the field of institutional commercial cleaning and hotel-restaurant work. An additional section dealing with outdoor grounds work is in the planning stages. Students began the program with simple occupational exploration in their resident buildings. In a second phase, trainees received instruction in occupational areas from BOCES personnel who came to the hospital. Those students successful in the hospital training were gradually introduced to community employment and will eventually gain independent employment.

A program in public service maintenance was established at the request of Wassaic State Hospital by the Dutchess County BOCES to provide occupational training for mentally retarded adults. Trainees were taught the use of service maintenance tools and appliances as well as personal skills necessary for success in securing and retaining a job. Adults enrolled in the course were transported from the hospital to the BOCES area center for each training session.

An expanded program operated by the city of Yonkers provided emotionally disturbed residents of Rockland State Hospital with training which would lead to entry-level employment in the areas of clerical work, floral design, building maintenance, and food services. Students were selected by the hospital's after care unit, which supplemented the occupational instruction by providing psychiatric personnel to support and assist trainees and serve as liaison between the hospital and BOCES staff. Forty-eight students attended instructional centers 3 days a week, 2 1/2 hours per day.

On-the-job training was frequently provided for handicapped adults in order to make instruction as relevant and practical as possible, A Nassau County BOCES experimental pilot system provided occupational education to handicapped adults who could not participate in regular programs. Each student received employability instruction, was placed in basic entry-level paid employment, and supervised on the job. Students who succeeded in this program continued receiving individualized occupational education designed to advance them to better and more highly skilled jobs.

Another program for the health handicapped in Nassau County served 70 adults through on-the-job occupational training in industry. Seven training clusters, each at a different location, were offered, including plastics manufacture, mechanical assembly, hotel-motel cleaning, food services, warehouse work, health services, and building maintenance. After demonstrating the ability to perform skills independently, a trainee was then transferred to the mainstream of work within the industry. Another handicapped person could then enter the vacated training position.

Deaf adults in New York City were provided on-the-job training in real work settings. Students explored various occupational areas as they shifted to different job stations depending on their interests and abilities. Students were then placed in entry level positions in office and industries. The program staff, consisting of job developers and counselors, concentrated on establishing employment sites and assisting individuals with work related communication difficulties.

A work experience program for 40 handicapped young adults was offered by the Westchester County BOCES #2. The student's day was divided into two sections. The morning session dealt with the teaching and reinforcement of basic education skills. In addition, classes were taught by work coordinators in developing proper work habits and attitudes. The second session was devoted to particular occupational areas to develop basic entry-level skills. Whenever possible, students were mainstreamed into the regular curriculum to acquire necessary occupational skills.

Supplementary services were provided for handicapped adults to facilitate their adjustment to occupational training and working conditions. New York City developed a counseling and placement service particularly for handicapped adults. Occupational personnel visited schools, hospitals, rehabilitation facilities, and homes of the handicapped in order to locate eligible persons who were then counseled privately. Two instructors and two job developers were responsible for skill training and placement of the handicapped in a variety of jobs including clerical positions, restaurant work, and electronics assembly. Also in New York City, a travel training service for physically handicapped adults was expanded. Persons served included those in need of assistance to travel independently to one of the occupational training centers, and those in need of travel assistance to gain or maintain employment. During the past year this program included a parent orientation component.

A new exploratory program in the city of Rochester utilized several industrial specialists to assist the instructors in practical occupation-based applications. Skill training in the areas of electricity-electronics, small appliance repair, small engine repair, graphic arts, and plastics was taught by two instructors experienced in working with the handicapped.

Programs for physically handicapped adults were continued at the community college level. Twenty visually handicapped students accepted into post-secondary programs were offered a summer orientation program at Queensborough Community College again this year consisting of course work, specialized counseling, mobility training, and study skills training. Close cooperation and support is maintained on a year-round basis between the college and the Commission on the Visually Handicapped through local representatives and with various city-based agencies serving the visually handicapped. LaGuardia Community College conducted a typing and keypunch training program for persons with various physical handicaps. Special devices were furnished to each trainee depending upon the nature of the disability. The goal of the program was for each student to achieve a minimum typing rate of 45 words per minute, and to perform routine office and clerical tasks required for employment.

MULTILEVEL GOALS

This section of the report describes the State's accomplishments during fiscal year 1974 in relation to a variety of goals which have implications for all educational levels.

- Goal: Assist in diminishing the barriers to employment that may be encountered by various segments of society, including the aged, handicapped, women, disadvantaged, and other minority groups who may experience job discrimination.

Accomplishment

Analysis of enrollment data concerning black and Spanish-surnamed Americans collected through the Occupational Education Data Subsystem indicates that minority group members constitute approximately the same percentage of the occupational education enrollment as they do of the overall public school enrollment. Further analysis of enrollment and followup data should assist in defining the role of occupational education in eliminating barriers to employment resulting from discrimination.

The total enrollment in public occupational education during 1973-74 was 618,140. Of this total, 84,251, or 13.6 percent, were black; 45,074, or 7.3 percent were Spanish-surnamed Americans; 7,787, or 1.3 percent were Oriental; and 1,673, or .3 percent were American Indians.

- Goal: Provide leadership to achieve goals and objectives of occupational education in accordance with Federal, State, and local policies, rules, and regulations.

Description

Federal funds were used to provide administrative leadership in occupational education through partial support of the staffing and related expenses of the State Education Department, including support of the staffing of the Research Coordinating Unit.

The activities of the State staff included administrative functions of occupational education planning and resource allocation, and consultive and supervisory services for improvement of instruction.

The Research Coordinating Unit provided consultant services to educational agencies regarding development of research activities, disseminated information and research findings in occupational education, initiated "in-house" research activities, and coordinated the occupational education research effort with other State research activities.

A portion of the State's Education Professions Development Act (EPDA) allocation was utilized to support the salary and related costs of the EPDA coordinator, who supervises and coordinates all EPDA funded activities related to occupational education.

- Goal: Continuously reexamine and strengthen the relationship between occupational education programs and current and anticipated employment opportunities.

Accomplishment

In fiscal year 1972 a Department staff member was designated as industry-education coordinator, with full-time responsibility for coordinating efforts to improve two-way communication between educators and employer and employee groups.

The coordinator's activities during the past 3 years have included: dissemination of information within the educational community and to business and industry regarding the intended function of occupational education; assistance to educators and employers in developing new and expanded work experience opportunities; planning of educational opportunities which orient teachers to the needs of business and industry, through summer tours, industrial workshops, summer industrial employment, and participation in regional councils of scientific and technological societies; groundwork for establishing improved contacts with organized labor at the local level; and participation in workshops on the educational uses of community resources.

The following are examples selected from a wide variety of activities and contacts engaged in by the State industry-education coordinator during the 1974 fiscal year: meetings with the Syracuse Chamber of Commerce, city and county officials, and school personnel toward the purpose of establishing an industry-education council in the area; organization of 10 summer industry tours for educational personnel; mailing to 400 organized labor locals in the counties adjacent to New York City for the purpose of increasing labor representation in activities relating to occupational education; establishment of statewide liaison with the YMCA Youth and Industry program, and with the Junior Achievement program; work with the National Alliance of Businessmen in

the development of a career guidance institute for service to a four-county area in the Capital District; work with the United States Air Force and graduate teacher education institutions in the development of aerospace education workshops; initiation of a project with the New York State Department of State in preparing an index of employers in New York State; and conducting a 2-day training session for all regional industry-education coordinators.

In the 1973 State Plan, provisions were made for the establishment of six regional industry-education coordinator positions to serve specific sections of the State. Partial support was continued during fiscal year 1974 for the coordinator positions in the following areas: city of Rochester; New York City; Erie County; Niagara County; Herkimer, Madison, and Oneida Counties; and Oswego County.

The following are specific examples of activities carried out by regional industry-education coordinators during fiscal year 1974. The Rochester coordinator reported on such activities as: compilation of a resource directory, "A Guide to Metropolitan Rochester Business, Industry, and Trades;" designing of a communication mechanism for industry-education liaison in all elementary, junior, and senior high schools; development of a community service organization file and manufacturing file and its conversion to data processing for facilitating the communication process; compilation of a parent resource file; introduction and presentation of career education packets into the Rochester City School District; preparation and design of inservice training for school industry-education liaison persons, to be implemented in September 1974; and convening of an industry-education committee to determine the direction for industry-education cooperation.

The Mohawk region coordinator, stationed in Herkimer County, reported on the following activities: planning and direction of a County Career Day at Herkimer County Community College; cooperation with the regional career education coordinator in the development and operation of a graduate credit community resources workshop for educators in the area, designed to survey community resources and to develop techniques for infusing them into the classroom curriculum; and personal contact with more than 150 businesses and industries in the region to discuss means of increasing cooperation and communication between the business/industrial community and the educational community.

The Niagara Falls coordinator reported on the following activities: conducting career education related staff development programs for teams of faculty members, guidance counselors, managers, and librarians representing elementary and secondary schools; sponsoring by the industry-education council of a 9-week systems management program for school management personnel and members of the Board of Education, conducted by consultants from the School of Labor and Industrial Relations at Cornell University, and funded by an area foundation; publication of a Directory of School Management Volunteers following a 6-month

survey of the metropolitan area; establishment of career information centers at the junior and senior high school levels; publication of a Directory of Volunteer Career Consultants organized into the United States Office of Education's 15 career-cluster pattern, and based on a 5-month survey of the metropolitan area; and the continued hosting of a weekly 30-minute public information radio series on a Buffalo radio station, in which items on school-industry cooperation are described.

The Niagara Frontier Industry-Education Council coordinator, serving Buffalo and the service area of Erie County BOCES #1, reported that as of April, 1974, 44 business and educational organizations had become charter members of the Council. Among the Council activities reported were: participation of 75 teachers in a special workshop on career awareness, which meets for 3 hours weekly at a variety of community locations; a resource bank which currently provides teachers with names, addresses, and telephone numbers of more than 1,000 persons ready to explain their careers and the necessary training, as well as a section on available firms and tours; printed information and consultation on the planning and conducting of career days, available on request to guidance counselors and teachers; a high school executive internship program, in which 25 high school students will be released from classes for a semester to spend 4 days a week on the job with executives and 1 day a week in meetings with the program coordinator to compare their experiences and obtain information and guidance; an executive exchange program in which school superintendents and executives in industry, business, labor, and government team up for a series of typical working days; a teacher exchange program, in which teachers and guidance counselors share on-the-job experiences with employees of business, industry, labor, and government.

- Goal: Conduct research, evaluation, curriculum development, exemplary, and inservice education activities designed to enhance the quality of the State's total occupational education program.

Accomplishment

Because of the number and variety of activities involved, the narrative description of accomplishments under this goal has been divided into the following items: Management Information System; Research and Development Institutes; Other Research and Evaluation; Exemplary; Teacher Education; and Curriculum.

MANAGEMENT INFORMATION SYSTEM

In fiscal year 1971, Riverside Research Institute in New York City began assisting the State Education Department in developing and implementing a coordinated program planning, budgeting, and evaluation system for occupational education. In the first year, RRI worked with Department personnel in assessing the State's occupational education reporting and evaluation needs. During the 1971-72 school year, RRI carried out a systems study at the Nassau County BOCES, studying existing operations and procedures for State and Federal reporting and assessment of program effectiveness, and developing and partially testing a reporting and evaluation system within the BOCES. During the 1972-73 school year, the reporting and evaluation system was implemented fully in Nassau County BOCES, partially in New York City, and fully in occupational education Planning Region #9, comprising Cayuga, Cortland, Onondaga, Oswego, and Tompkins Counties. In 1973-74, the system was expanded to include full implementation in New York City and in Regions 8, 10, and 11 as well as in Nassau BOCES and Region 9. By fall 1974, the enrollment portion of the system will be implemented throughout New York State, with full implementation of the followup portion in fall 1975.

Work performed in 1973-74 has involved further design, development, and operation of the information-processing component for managing occupational education. This component is called the Reporting and Evaluation System for Occupational Education (RESOE). Currently, RESOE is being developed to support two management processes associated with occupational education, targeting and instructional support and evaluation. Both processes are intended to tailor occupational programs to improve the match between skills acquired by students and skills actually required for employment. Targeting matches programs offered in occupational education to the spectrum of available jobs; the Instructional Support and Evaluation System matches the content of specific programs to the needs of specific jobs. Because of the flexible computer processes used in RESOE, the system also will be capable of supporting a variety of other decisionmaking processes at State and local levels.

An important design objective of RESOE is to provide an "automated," cost-effective means of generating essential reports of various kinds, for example, reports of student enrollment for use in the State Plan for Occupational Education. Much of the work to date has involved developing such basic information handling capabilities that represent the foundation of RESOE. The development and implementation of RESOE is proceeding in two stages. Stage 1 involves developing methods of processing information necessary for fulfilling needed reporting requirements on occupational education enrollments and completions. Stage 2 involves adding capabilities to RESOE to provide flexible, cost-effective data processing support for program planning at State and local levels.

RESOE information processing applications are made possible by a computer-based, recordkeeping system that contains files of several kinds. The first files to be developed are individual student files for storing enrollment and followup information. Concurrent with development of student files, local agency files are developed for storing information on local agency programs. Stage 1 work to date has dealt primarily with establishing these files.

Once information for each student is entered into a file, any subset of data elements for that student can be withdrawn for aggregation with equivalent subsets from the files of other students. Thus, reports presenting numbers of students in any category definable from the filed information, or statistical analyses involving any parameters on file, can be generated. Information does not need to be acquired for each requested display or analysis because, to the extent possible, required information is contained in existing files. As new needs for data arise, data acquisition procedures and existing files can be expanded to meet these needs.

Although RESOE ultimately will include the full set of files necessary for standard State and local program planning, and will include optional sets specified by local users, RESOE file development has begun with establishing enrollment and followup files for meeting reporting requirements associated with planning. Enrollment files contain student name, sex, ethnicity, level (adult or secondary), type (regular, disadvantaged, or handicapped), program name and code, program type (regular or cooperative), and, for adult students, the student's purpose in taking occupational education. Each student is identified by a number, and his class and local agency are specified. This information is used to prepare statewide and local enrollment reports. In addition, some categories of information, such as student address, currently are included because of widespread interest in them by local administrators.

Information in followup files includes student name and current educational or occupational activity. This information is combined with information in each student's enrollment file to prepare statewide and local followup reports. Using the filed information, the computer prepares statewide summary reports for SED, agency-wide summary reports for local education agencies, including BOCES and school districts, and reports for each LEA which list individual students and pertinent information about them.

In work related to Stage 1, during 1973 introductory meetings were held in Regions 8, 10, and 11 to explain RESOE purposes and procedures to BOCES and school district superintendents. At each introductory meeting, superintendents expressed interest in and provisional support of RESOE, and each superintendent designated a coordinator--a person to assume responsibility for implementing RESOE in agencies under the superintendent. Following the introductory meetings, implementation

meetings were held at the BOCES in Region 8, 10, and 11, and the city of Rochester. These meetings were held for the purposes of introducing designated coordinators in local agencies to existing RESOE Stage 1 capabilities and to anticipated Stage 1 and Stage 2 capabilities. At these meetings, coordinators were asked to implement basic RESOE processes (establishing individual student files) in their respective regions. Their responsibility as coordinators for this first year of implementation in Regions 8, 10, and 11 included the following primary functions: designating a counterpart to the RESOE coordinator at the district or school level; acting as RESOE liaison with RRI/SED; and acting as liaison with affiliated local districts in distributing and collecting RESOE enrollment forms.

During 1974 RESOE Stage 1 operations were expanded to include the remaining regions in the State. Two types of meetings were held: introductory, "kick-off" regional meetings to introduce BOCES and city superintendents to RESOE, and shortly thereafter regional implementation meetings with designated BOCES or city RESOE coordinators to operationalize RESOE procedures in their localities. As of this writing, the enrollment and followup components of RESOE were being implemented statewide. In the 1974-75 school year, all secondary and adult occupational education enrollment data will be collected through the RESOE system, and the files will be established for collecting all followup information through RESOE in the 1975-76 school year.

Based on experience explaining RESOE to local educators throughout the State, RRI and SED perceived the need to develop a brochure to provide information on RESOE to local educators who were to implement RESOE in their agencies during the 1974-75 school year. The RESOE brochure has been developed and serves as an instrument for aiding dissemination of RESOE on the BOCES and school district level. It is directed toward a readership consisting mostly of local educators at the secondary and adult levels of occupational education. In addition, it is likely to be read by parents and students, by educators at the State level or in post-secondary institutions, by members of the executive or legislative branches of the State government, and by members of Federal agencies or State agencies in other states.

Major work in Stage 2 of RESOE has focused on developing design concepts for an Instructional Support and Evaluation System (ISES) for Occupational Education. Such a system for occupational education can provide a means for more effectively using instructional resources. ISES efforts include the following two major components: program analysis and design, and information processing. Program analysis and design strives to identify discrete occupational education programs and their component subprograms, to formulate program objectives in terms of terminal objectives and their component intermediate objectives, and to design modular curriculums in terms of their module objectives, instructional content, activities, criterion-referenced tests and resources. Information processing is required to put the

design into operation by recording data and by providing analyses necessary to support decisions regarding classroom instruction, classroom resource allocation, student guidance, and student placement.

Implementing the information processing component of ISES can be based to a considerable degree upon procedures developed for use in the Guilderland Central School District to support the delivery of instruction in reading and mathematics curriculums. Software, hardware, and instruments currently used need to be modified to tailor them to the special features of occupational education. However, new information processing procedures not required in the Guilderland Central School need to be developed for occupational education.

Work is continuing within SED on the identification of performance objectives corresponding to entry-level job skills for all occupational education programs, as a foundation for further development of an ISES system.

To develop a comprehensive management information system for occupational education, work also needs to be continued on the design and implementation of improved targeting procedures, and on establishment ment of more adequate cost-accounting procedures.

RESEARCH AND DEVELOPMENT INSTITUTES

In fiscal year 1971, two Research and Development Institutes for Occupational Education were formed, one at the City University of New York, and the other at Cornell University, for the purpose of conducting studies and providing other services related to needed change in the field of occupational education. The City University center primarily focuses on urban and suburban needs; the Cornell center on rural and suburban needs. The two institutes received continued partial support through VEA funding during fiscal year 1974.

The goals of the Cornell Institute for Research and Development in Occupational Education are: to conduct and sponsor research and development projects to aid in the implementation and improvement of programs and services; to increase effective and efficient dissemination of information about occupational education and research results; to provide training and experience for present and future professional leaders and researchers in the area of occupational education; to provide field services in support of the efforts of the several constituencies served by the Institute.

The purpose of one study conducted under the first of these goals was to develop curricular materials in the form of a mini course to assist 11th grade students in improving their career decisionmaking skills. The Peter Blau model of occupational choice and a career decisionmaking model served as a framework. Emphasis in the course is

on the individual decisionmaker; his options, his values, and information he knows about occupations. The course received trial use in two schools (city and rural central) by an academic group of boys and girls. Increased post-test mean scores and increased post-test weighted scores on knowledge students had about themselves and occupations were reported. Students saw more occupational choice and a number saw that their first and second choices might not be the best for them. Extending the duration of the course, offering it to a larger population, more attention to training in the decisionmaking process, skills in value clarification, and sensitivity to student needs were recommended.

A proposal was developed for investigating the determinants of the curricular decisions made by eighth graders for their high school programs. A model has been developed and work on instrumentation continues. It is planned that data will be collected in the fall after the instruments are piloted.

The purpose of another study was: to determine the relationship between level of self-awareness and career awareness. A total of 86 students in the sixth grade from two school districts participated in the research. They were all students of teachers who had participated in a 6-week career education workshop sponsored by the New York State Education Department. Results indicate a slight but not statistically significant relationship between self and career awareness. The career education program was very successful in increasing career awareness but not self-awareness. I.Q., socioeconomic status, and number of siblings are related to self and career awareness, according to the study.

Another project is designed to develop, evaluate, and disseminate a system for occupational program planning in community colleges. The system has been developed through the efforts of the project staff, an advisory committee of deans from six community colleges, and consultants in various areas of program planning. The system organizes the necessary content and steps for two major decisions about a program, whether it warrants full investigation, and whether it deserves implementation at the college.

The project has produced two documents. The first document is Occupational Curriculum Planning in Two-Year Colleges: Toward a New System. It reviews the developments in program planning in 2-year colleges and systems theory that are important to the development of a system for occupational curriculum planning. The second document, A System for Occupational Curriculum Planning in Two-Year Colleges, is the preliminary edition of the project system. The next step in the project will be the field testing of the system in the development of occupational programs at four community colleges.

The genesis for one project is found in New York State Regents Position Paper No. 14: Equal Opportunity for Women. The project focuses on individual and family background factors which affect program and career choices of women in 2-year colleges. Survey and interview instruments were developed and administered to samples of female and male students in four New York State 2-year colleges. Analysis of the data is underway and a summary report will be available in late summer. The project has been continued for fiscal year 1975 and will be expanded to include 2-year colleges in New York City.

The Central Region Continuing Education Studies were undertaken in an 11 county area to 1) inventory continuing education opportunities for adults provided by a wide range of organizations, i.e., educational organizations, employers, labor unions, social and cultural groups, and government agencies; 2) assess the education needs of adults in various occupational agencies; 3) develop a model for optimal adult education information and counseling delivery; and 4) contribute to regional program planning, coordination, and resource rationalization for continuing education. Working with volunteers organized by 40 Rotary Clubs, 1,000 needs assessment interviews have been completed, with 3,000 in process. In addition, 500 special blue collar needs assessment interviews have been completed and sessions to identify education needs from the employer point of view have been initiated throughout the region. An inventory of adult education programs, policies, and personnel is underway throughout the region. Project team members have developed a comprehensive typology for the orderly retrieval, storage, and dissemination of continuing education information. Preliminary findings indicate that while many education opportunities exist, a large proportion of adults do not participate. Furthermore, it appears that those who do not participate are for the most part those with the greatest need; i.e., they are the least educated, from the lower socioeconomic groups, and of rural or center-city residence.

The Institute's second major goal is to increase effective and efficient dissemination of information about occupational education and research results. The following publications were developed in relation to this goal. Six issues of a newsletter, Career Commentary, were published during 1973-74. Three thousand copies of each issue were distributed to principal Institute clientele.

Two hundred twenty-one copies of the pilot edition of Occupational Development Seminar: Instructor's Manual were distributed by the Institute. The publication is available in microfiche and hard copy through the ERIC system. Corning Community College and Cazenovia Junior College report the development of credit courses based on the Manual. Correspondence from other 2-year colleges suggests numerous adaptations of the material for use in noncredit settings and/or incorporation of suggested learning activities in existing credit settings.

Performance-Based Professional Inservice Needs of Secondary Level Occupational Teachers in New York State is in use by colleges in New York State and at the Ohio Center for Vocational and Technical Education. Twenty-five copies of the full report and 250 copies of the resume have been distributed.

Cornell's Instructional Materials Service has continued as the agency for dissemination of Institute publications. IMS has handled requests for 600 copies of the Teacher's Manual for the Career Awareness Inventory and 3,900 copies of the student booklet for the Career Awareness Inventory.

Publications scheduled for printing during July and August include: a report on the associate degree nursing program, a module of instruction in career decisionmaking, and a pilot model for curriculum decisionmaking in the 2-year college.

A project entitled Autotutorial Study Skills Program was completed during 1972-73. During 1973-74, a publications contract has been negotiated between Cornell University and C.E. Merrill Publishing Company. Publication date for this multimedia material has been established for February 1.

In fulfillment of the Institute's third major goal--to provide training and experience for present and future professional leaders and researchers in the area of occupational education--an Occupational Development Seminar was conducted at Corning Community College. The seminar was approved as a three-credit course at Corning and offered again during the spring term. A shortened 8-week version of the seminar was offered for women at Cazenovia College with success. Parts of the seminar were also offered at Jefferson and Jamestown Community Colleges.

A procedural model to guide the production of a Competency-Based Teacher Education (CBTE) program in agricultural education has been developed. A library of materials including program descriptions, actual modules of instruction, and general philosophical considerations of the concept of CBTE is being formed. Papers planned for publication have been written in connection with the project.

The Institute was host to the Second Annual Workshop-Seminar for New York State Directors and Assistant Superintendents of Occupational Education on January 13-16. The seminar was jointly sponsored by the Institute and the Office of Occupational Education, New York State Department of Education, and planned with the aid of a committee of Directors of Occupational Education. The seminar theme this year was "Annual and Long-Range Planning." The seminar was attended by 51 local administrators, several State Education Department and Institute staff members, and special guest from Puerto Rico, Mrs. Luz Algarin de Ramos.

Ten inservice institutes for career education were held during a 6-week 1973 summer session for approximately 400 elementary teachers in 62 teams. The institutes were located at six SUNY colleges and four private colleges in New York State. The effort was organized in terms of the statewide strategy and institute model developed at inception of the project. The final report of the 1973 cycle was published April 1, 1974. Copies were distributed to the State Education Department, Regional Career Education Coordinators, and institute directors. The publication has been submitted to the ERIC Clearinghouse for Career Education for accession in the ERIC system. The 1974 cycle of institutes are underway in the summer of 1974 in 5-week sessions. The Institute will continue with on-site evaluative visits, post-session meetings, and followup activities.

Factors affecting the performance of associate degree nursing graduates on the State licensing examination were studied in a joint effort with the Nursing Education Unit, State Education Department. Findings from the study are included in the project final report. Also included is a program evaluation inventory which was developed from the findings and is designed for use by nursing departments in self-appraisal.

A study was conducted (1) to provide an analysis of teachers and occupational directors' attitudes toward occupational youth organizations in area occupational centers, (2) to identify problem areas, and (3) to make recommendations that would enable youth organizations to function more effectively in New York State's occupational centers. A self-administered questionnaire was completed by occupational directors, current youth organization advisors, and a random sample of non-advisor occupational teachers from New York State's occupational centers. The following findings were reported: (1) the responsibility for successful occupational youth organization activities in the occupational centers lies with the teachers and the administrative support they receive. (2) The teachers and occupational directors generally did not understand the aims and purposes of occupational youth organizations. (3) There is a need for increased inservice education in the area of occupational youth organizations. This can also be interpreted as a need for including additional youth organizations training in preservice teacher education programs. (4) Occupational youth organization opportunities are not adequate in the occupational centers. Eighty-seven percent of the directors felt that a greater percentage of their students should be involved. (5) One occupational youth organization to serve all the occupational specialty areas is not a satisfactory arrangement. (6) Leadership training cannot be effectively taught in the classroom setting. (7) Student enthusiasm is a problem, and additional research is needed to better define the profile of students attending occupational classes.

The ongoing involvement of graduate research assistants in nearly all of the Institute's research and development projects provides professional preparation essential to their eventually coping with the realities of the education professions. Among the appointments received by graduating research assistants were: a faculty position at the State University, Rutgers, New Jersey; a faculty position at the New York State College of Human Ecology, Cornell; and a position on the guidance staff in the Albany, New York, City School System with a major responsibility for occupational guidance.

A fourth major goal is to provide field services in support of the efforts of the several constituencies served by the Institute. In response to an expressed need by the regional career education directors, a third-party program evaluation proposal was offered by the Institute for 1973-74. The contracted evaluation proposal provided for visitations and consultation plus support services. Examples of these services included telephone consultation, library research, provision of original and published evaluative instrumentation, proposal consultation, materials dissemination, program component consultation, third-party interviewing, and data collection. Five regions contracted for these services including: Broome, Delaware, Tioga; Greene #2, Delaware, Schoharie, Otsego; Oneida #2, Hamilton, Herkimer; Delaware, Chenango, Madison, Otsego; and Saratoga. Interim reports were compiled for each of the contracted regions during mid-year. Final reports were submitted June 30.

During 1973-74 the Institute provided third-party evaluation services under a memorandum of agreement with six separately funded projects at five New York State 2-year colleges. The colleges and projects are Delhi Agricultural and Technical College--Tri-County Regional Development Project and College Skills Project; Schenectady Community College--Paraprofessional Training Project; Tompkins-Cortland Community College--Career Counseling Center; Ulster County Community College--Service Technicians Program; Onondaga County Community College--PACE, Programs of Articulated Career Education. These project evaluation efforts also relate directly to the Institute's objective to provide training for future leaders through the use of graduate students working in the field on real problems under the direction of the Institute director and associate director.

The Institute served as an administrative agency to facilitate the work of the Bureau of Home Economics, State Education Department. Arrangements were completed for an inservice workshop to train five coordinators who in turn conducted five regional 5-day curriculum workshops. Personnel for programs and consultant services were provided by the Bureau of Home Economics Education.

The Institute also conducted the 1974 Adult Consumer-Homemaking Education Institute, the theme of which was, "Raising Your Child Development Quotient." The 3-day institute featured a lecture on "Effective Means of Parents Communicating with their Children--Parent Effectiveness Training." Other topics covered during the institute were child care at meetings, child abuse, fundamentals of pre-kindergarten instruction, humanistic approach, teacher methods and resources, learning in early childhood, and inservice training plans. A field trip to an adult consumer-homemaking center and observations of the child care facilities in operation were also part of the program. The conference was conducted at a site in Albany, New York.

Two major projects were planned and initiated during the year. Major effort in connection with these projects will be conducted during 1974-75 and project time lines project continued efforts during 1975-76 subject to the availability of funding. A third major effort continues toward involvement of the Institute in the cooperative development of an Instructional Support System for Occupational Education.

One major project planned and initiated is an assessment of professional needs in programs of occupational education in New York State.

A second major project underway is development of a system for identifying, evaluating, and disseminating curriculum materials in occupational education. Some of the objectives of this study are to select and train regional task forces of occupational education teachers to identify, evaluate, and disseminate materials; to strengthen and increase the responsiveness of occupational education to the needs of disadvantaged and handicapped groups and students with special needs, through innovation and exemplary program implementation; to extend and develop modular, flexible and performance-based curriculum and to increase and enhance the articulation between all levels of education as these relate to career and occupational education.

In the third major continuing effort, the Institute director and staff have cooperated with the Assistant Commissioner for Occupational Education, his staff, and the staff of the Riverside Research Institute toward planning a cooperative effort to design and implement elements of a comprehensive instructional management system.

The City University of New York Institute for Research and Development in Occupational Education conducted a wide variety of research project activities during 1973-74, including some that have been completed and some that are continuing. The Institute also provided services to a broad range of organizations.

Among the projects undertaken and completed is an Occupational Counseling Continuum. The project finished its second year of operation and has successfully demonstrated the viability of modifying the role of the community college counselor through inservice education of

the college community by the Institute. The objective of creating new patterns of occupational advisement was realized through such outcomes as: a movement from psychologically-oriented personal counseling to occupational information-giving and career decisionmaking emphases; a concentration in several colleges on a pre-admissions to placement counseling approach; the development and introduction of a programmatic approach to serving students who have not made career choices; expansion of the curriculum product, "Psychology of Career Choice," to two additional community colleges; an ongoing occupational advisement center established at one of the colleges and hiring of an additional occupational adviser/counselor at another college; New York State Department of Labor training provided at each college site to teams of counselors; the colleges' expressed commitment to continued occupational information workshops for counseling and academic faculty.

Another project was designed to encourage articulation efforts which would attract greater numbers of handicapped individuals to community college career programs, allow the provision of more adequate learning facilities (e.g., architectural access, learning resources and materials) on campus, and encourage placement of graduates in appropriate jobs. Twenty-three community college teams participated in a 2-day workshop conference at which strategies were developed for overcoming barriers to the foregoing objectives. Strategy development was enhanced by expertise of Federal, State, and local administrators of programs for the handicapped (e.g., New York State Office of Vocational Rehabilitation, New York State Department of Labor, Manpower Services Division of HEW, Human Resources Services Agency, President's Committee on Employment of the Handicapped, Veterans Administration, Rusk Institute, Institute of Rehabilitative Medicine). A panel of six handicapped college students led by a paraplegic college counselor facilitated the Institute's sensitizing strategy, and assisted in workshop activity in concert with the consultants.

The Educational Applications Assistance Group (EAAG) project, conducted with the New York City Board of Education and the Economic Development Council, was intended to continue the successful implementation of innovative and exemplary programs designed to overcome the problems of an urban high school. In this second year, two high school personnel from James Monroe High School in the Bronx were released from teaching responsibilities to act as resource personnel. ERIC library capability and inservice staff development activities were among the facilities and procedures used in staff and program development to improve attendance, reading, and mathematics instruction.

In a project entitled Psychology of Career Choice at Bronx, Hostos, Ulster, and Monroe Community Colleges, the CUNY Institute was involved in the development and evaluation of "career choice" classes. Significant differences in holding power between high risk students taking the course and a similar group not taking the course were found in a small sample. The Institute was interested in disseminating the curriculum

and determining its efficacy with larger numbers of students. Data treatment and a final report were being attended to during July-August.

The Institute continued to be involved in implementing the State Project to Implement Career Education (SPICE) project in three New York City community school districts. In a dissemination and staff development project, the 29 community school district teams were invited to attend the first of nine workshop conferences, at which Sidney Marland, among others, discussed the concepts underlying the career education thrust. The district personnel were then advised that the Institute would conduct eight additional workshops. Among the outcomes were specific district strategies for mounting a career education program, the development of proposals for funding certain aspects, and stated commitments to implement one or more career education programs for fiscal year 1975.

The Institute's Advisory Council had, on several occasions, indicated concerns in the area of sex bias in occupational education. Original emphasis was intended in the area of occupational information publications, but continued exploration and priority development established a need for minimizing sex bias in interest measurement. Accordingly, the Institute set out to define the problem of sex bias in testing context and interpretive materials, and to acquaint users of interest inventories with problems of sex bias in interest measurement. In addition to describing the "state of the art," an objective was to heighten the sensitivities of guidance and counseling practitioners by making available to them information relating to recent research data and the "Guidelines for Assessment of Sex Bias and Sex Fairness in Interest Inventories," which will be incorporated with it. Publication was anticipated for September 1974.

The Long Island Association of Vocational Education Administrators had requested the Institute to assist them in the development of procedures for screening and selection of occupational educators. Of interest was the implementing of competency-based procedures for certification requirements anticipated in the future, possibly incorporating aspects of the Institute's certification model developed for the State Education Department. A tentative interview-screening checklist for administrators was developed which incorporated samples of competencies, other than trade competencies, desirable in prospective teachers. Among the areas covered were: knowledge of job market, requirements for job, motivational techniques, safety regulations, instructional techniques, etc. An insufficient sample of live interviews was obtained to judge viability. A larger-scale implementation is anticipated for the coming year to obtain inputs for a refined and/or expanded instrument which could be disseminated for possible use by occupational administrators throughout the State.

A Survey of Entry-Level Bookkeeping Activities in Relation to the High School Bookkeeping Curriculum presents compelling evidence for the substantial irrelevance of a current major school curriculum, together with detailed bases for curriculum revision. In addition, its procedures provide a model for the conduct of investigations into occupational curriculums recently recognized as a major need by the Center for Vocational and Technical Education at the Ohio State University. The State Education Department has prepared for quantity distribution to directly concerned school personnel both brief and detailed summaries of the report's findings. The principal investigator has made a number of presentations of report findings at major national meetings of educators and has been invited to prepare several articles for business-education journals with national readership.

Two projects underway during fiscal 1974 are continuing in the current fiscal year. A prime goal of the Institute has been to stimulate change based upon successful demonstrations of pilot projects of an experimental or exemplary nature. The Institute has sought to broaden the base of dissemination activity through the publication of special interest papers geared to a wider audience than researchers, but limited to populations concerned with the topic of the paper and in a position to effect change. "The Vocational-Technical Principal as Planner," "The Occupational Outcomes of Technical Education--A Gap in Educational Information," and "A Job-Oriented Curriculum Model for the Two-Year College" were published in the 1973-74 academic year. They relate to occupational high school principals and occupational education directors, high school guidance counselors, and chairpersons of technical education departments, and presidents and deans of instruction at community colleges, respectively. Additional papers readied or being prepared will be disseminated in fiscal 1975 to still other change agents in the hope that shared ideas and stimulated interest will result in grass-roots endeavors to effect change.

The Computer-Assisted Guidance project is in operation at five New York City high schools: Louis D. Brandeis High School in Manhattan, Francis Lewis High School in Queens, Herbert Lehman High School in the Bronx, Midwood High School in Brooklyn, and Port Richmond High School in Staten Island. Its basic objectives are to: demonstrate the feasibility of using an automated system to provide high school students with current information pertaining to objective aspects of college and career characteristics; and evaluate the effectiveness of a computer-assisted system on student choice among alternatives and allocation of professional staff time. By the end of April, approximately 1600 students in the five schools had used the system. Since the evaluation of the project will continue through June 1975,

it is premature to draw specific conclusions or recommendations about the effects on the students. However, the concept of "computerized guidance" seems to have been successful in terms of student and staff use and acceptance, and many procedural recommendations have been made in interim reports.

In addition to conducting specific research activities, the Institute has the objective of improving occupational education by providing service to constituents as an outreach of the State Education Department's Office of Occupational Education. The director and staff, and Institute sponsored consultants on occasion, participated in a variety of activities designed to support the enhancement of occupational education. Among them were career education speaking engagements, consultations with LEA personnel on inhouse research and development activities, assistance in proposal development, conference planning, curriculum development, and cooperation with municipal, State, and Federal agencies in the conduct of their occupational education-associated programs. Illustrative of the diverse organizations and agencies served are: New York City Board of Education Adult Basic Education Office; New York City Board of Education Office of Continuing Education; New York City Alcoholism Advisory Council; Peterson Fellowship Center; CUNY Office of Admissions Service; United Parents Association; Business Education Association of Metropolitan New York; Queensborough Community College, Student Personnel Department; New York State Personnel and Guidance Association; New York City Board of Education - Office of Career Education ;State Project to Implement Career Education (SPICE); Columbia Institute of Chiropractic; Institute for Social Research, University of Michigan; Council on Hotel, Restaurant, and Institutional Education; North Central Association Commission on Colleges and Universities; Vocational Industrial Clubs of America; Hofstra University; American Association for Higher Education; Mayor's Office, City of New York; Long Island Association of Vocational Education Administrators; New York State Office of Vocational Rehabilitation; New York City Board of Education - Bureau of Educational and Vocational Guidance.

Incidental services are also provided to persons and offices associated with the schools and colleges the Institute has been working with in its several funded projects. For example, at each of the five high schools where Computer-Assisted Guidance has been instituted, in-school and out-of-school personnel not associated with the project have sought demonstrations and/or training related to CAG, as well as other information or assistance. Among the agencies served were: Office of the Deputy Chancellor, Board of Education; Office of Educational Evaluation, Board of Education; high school personnel from each borough in New York City; New York State Employment Service; Allegheny Intermediate Unit; Project IRMA; Bureau of Attendance, Board of Education; non-New York City school districts; West Point; radio and television stations; National Council of Jewish Women; ITT Educational Services.

OTHER RESEARCH AND EVALUATION

A variety of other research and evaluation activities were conducted under the leadership of the Research Coordinating Unit of the State Education Department. These included continued work on an Evaluation Service Center for Occupational Education (ESCOE); a study of the feasibility of a continuous learning year program; a survey and report on travel agencies as a source of employment opportunities; and a survey of entry-level bookkeeping activities in relation to the secondary curriculum.

The Evaluation Service Center for Occupational Education (ESCOE) was established with the purpose of offering services to teachers in local education agencies to develop curriculum based on student performance objectives, learning resources, and criterion referenced test items. Each test item is designed to measure achievement on a particular objective, and the associated instructional resources provide the teacher with references to texts, audiovisuals, and community resources that can aid in the accomplishment of the objective. ESCOE is designed primarily as an agent for the collection and dissemination of these materials in all occupational areas through the use of a computer network. The ESCOE system allows for information sharing at the statewide level without impinging upon unique local needs and situations.

ESCOE was established as a joint project between the States of Massachusetts and New York in October 1970 and was based at the University of Massachusetts in Amherst for the duration of the 2-year contract. In fiscal year 1973, at the termination of the bi-state contract, New York State based its ESCOE operations at Hudson Valley Community College (HVCC) in Troy, New York. Starting July 1973, ESCOE moved to the New York State Education Department under the aegis of the RCU. A decision was made to institute a pilot project in health occupations and in particular practical nursing, to test the system's applicability to the broad spectrum of occupational areas. A major aspect of the project was the development and implementation of a simple direct-access computer delivery system. The computer delivery system is currently being field tested in six schools: Albany, Schenectady, Schoharie BOCES, Rockland BOCES, Suffolk BOCES III, Putnam, Westchester BOCES, Mid-Westchester BOCES and Rockland County Community College.

As development of an Instructional Support and Evaluation System (ISES) for occupational education advances (see description in this section under Management Information System) the results of ESCOE activities will be taken into account in the new system.

A feasibility study of the implications of a continuous learning year program upon community colleges was conducted at Fashion Institute of Technology during 1972-73. The final report on the study was issued during fiscal year 1974. Results of the study suggest that a continuous learning year, as opposed to the traditional pattern of two terms with a summer vacation, can result in improved utilization of instructional space and greater flexibility for students in entering programs and scheduling courses, as well as other educational and cost benefits. The final report, published by the State Education Department, describes three optional plans for implementing a continuous learning year program at colleges.

The principal purpose of a survey of entry-level bookkeeping activities in relation to the high school bookkeeping curriculum was to provide a basis for potential revision in the conventional high school curriculum. It has been suspected for some years that the job activities of bookkeepers have been heavily influenced by computerization and other modes of automated data processing, and a number of earlier investigations in the 1967-70 period called into question the relevance of the existing curriculum. The present study resulted in 13 findings, supporting the need for extensive revision of the high school curriculum. Recommendations include enlistment of the services of practicing accountants and bookkeeping supervisors in curriculum revision, and a more inductive approach to the teaching of bookkeeping than generally prevails today.

A survey of travel agencies in all regions of New York State sought to determine whether present secondary programs provide sufficient career information and preparation for young people to obtain employment in the travel industry. The travel agency executives responding appeared to indicate that a specialized high school curriculum for the training of travel counselors is not necessary, but that related distributive education subjects could be made more applicable to the training of travel counselors.

Two additional research projects proposed in the 1974 State Plan -- one regarding effectiveness of cooperative work experience programs, and one regarding career-related activities at the early secondary level-- were deferred awaiting the availability of further data.

EXEMPLARY

New York State's Part D - Exemplary funds for fiscal year 1974 were allocated for the support of the career education models already described in the ELEMENTARY and EARLY SECONDARY section of this report.

TEACHER EDUCATION

Inservice education programs supported by fiscal year 1974 VEA teacher education funds are described in the SECONDARY and ADULT sections of this report. Inservice education workshops related to career education, supported by Education Professions Development Act (EPDA) funds, are described in the ELEMENTARY and EARLY SECONDARY section. Additional teacher education activities are described below.

Reports were received from Syracuse University and State University of New York at Buffalo concerning health occupations education teacher education feasibility studies conducted during fiscal year 1973. Results indicated a need for regional collaboration by educational agencies, to make best use of all resources; identified general areas of competency needed by personnel and presented several possible programming designs, including status assessment, counseling and admissions procedures, and development of teacher competency in general professional education, the broad field of health occupations education, and teaching the health specialty. Followup and implementation activities are planned for the coming year.

The 1974 State Plan earmarked a portion of the State's EPDA allocation for a comprehensive personnel development needs study, leading to development of a long-range plan for meeting the qualitative and quantitative personnel needs for occupational education programs at all levels in both public and private agencies. During fiscal year 1974, efforts were continued to determine what studies were currently in progress in the State, and what data were already available to the Department. It was determined that two studies should be conducted - one quantitative and one qualitative. VEA and EPDA funds have been made available for these studies in the fiscal year 1975 State Plan.

CURRICULUM

During fiscal year 1973, curriculum coordinators were employed throughout the State to coordinate local development of curriculums having statewide applicability. VEA funds provided support for the employment of 18 coordinators at the city, area, and regional levels.

With the assistance of Department curriculum staff, progress was made by newly appointed coordinators in assessing local priorities which fit broad statewide needs, and developing preliminary curriculum materials. Utilizing personnel from surrounding areas as well as their their own staff, Nassau County BOCES developed a curriculum in medical assisting which will be used as a basis for a State syllabus.

Materials developed by personnel of the City of Buffalo and Erie BOCES #1 for a module in electronic medical equipment technology were field tested and supplemented with appropriate activities. Revised materials will be compiled for program implementation in other localities.

Two workshops were held by Nassau BOCES and Erie BOCES #1 to expand group process management and curriculum design skills of those persons having curriculum development and coordination responsibilities. These training programs helped to provide a better base for local curriculum development. Five zones in the State where curriculum personnel are employed were identified and liaison relationships established, which strengthens the operation of a curriculum development network within the State.

Additional curriculum activities during the year led to the completion and printing of eleven publications for secondary and adult programs.

- Business Organization and Management Syllabus was arranged to allow the local education agency to present a program in 30, 60, 90 or 120-hour segments;

- Dental Assisting Syllabus was completed and released to the schools in January 1974. Subsequently, a workshop was conducted to instruct teachers of dental assisting in the use of the syllabus as a basis for writing an effective local course of study;

- Curriculum Planning Guidelines for Home Economics Education, Grades 5-8, will be completed for a fall distribution. Regional institutes and field testing of modules have assisted in demonstrating the validity of the new program design;

- Building Maintenance Syllabus, provides for individual instruction for students in a class group;

- Drive Line Services is the seventh in a series of secondary/adult teacher guides for the automotive industries occupations;

- Diesel Services;

- Tips on Food Purchasing;

- Business and Public Policy is part of the Certified Public Secretary program;

- Stenography Refresher, Part I was designed to increase adult competency to reenter the labor market;

- Financial Analysis and Mathematics of Business was developed for adult programs.

Two publications are near completion pending final review and refinement. The Distribution and Marketing Syllabus contains 14 modules of instruction enabling students to select occupational clusters depending on their interests and employment needs. This curriculum development and redesign has involved 12 business representatives and 22 teachers in preparing materials for the new approach. Program elements incorporate activities of the classroom, laboratory, school store, student club program, cooperative work experience, and instructional projects in the business community. Guidelines for Modules in Agricultural Education provides a listing and description of about 210 independent modules developed and refined for the five major areas of agricultural education. This catalog will assist administrators, guidance personnel, teachers, parents, and students in selecting modules according to individual student needs. The modules will be available to schools upon request.

Preliminary work was started on five additional publications: Highway Construction and Inspection Unit VII; Milling, Machine Operator; Economics, CPS IIA, Part of Economics and Management, Part III; Stenography Refresher, Part II; and Drill Press Operator.

New York State, a component of the National Curriculum Coordination Network, participated in three meetings held by the New Jersey Curriculum Center and the first National Curriculum Seminar conducted by the State of Illinois. As one of 11 States in this network, New York is involved in the exchange of successful ideas and materials related to new trends in curriculum design.

Initial plans have been made for the development of several curriculum publications including Bookkeeping and Accounting Syllabus Revision, Distribution and Marketing Options, and Electrical Occupations. Priorities for curriculum needs are being investigated for future development through the efforts of a local curriculum coordinator, and management services of the Department's curriculum staff.

Another curriculum activity identified for fiscal year 1974 was to initiate the regional development of an interdisciplinary manual directed toward increasing the teaching competence of teachers of adult occupational education programs, and a handbook for coordination of cooperative education programs. These two publications have been in the planning stages and further work will be accomplished in fiscal year 1975.

HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS

SECONDARY

Occupational Learning Center

Syracuse City School District
409 West Genesee Street
Syracuse, New York 13202

The Occupational Learning Center is a new concept which represents an alternative program for secondary youth leading to a high school diploma and preparation for the world of work. The program is designed to serve the unmet needs of the most disadvantaged and disaffected students who are not able to succeed in the regular school program. Students referred to the Occupational Learning Center fall into one or more of the following categories: unable to succeed in regular school program as evidenced by failure and nonattendance in class; achieving at least two or more grades below high school grade level placement, especially in reading and math skills; dropouts and potential dropouts who can only be served by an alternative educational program; negative self concept and/or disaffection from anything relating to the future; home situation, environmental conditions, criminal record, and other personal factors that necessitate intensive individual attention; behavior ranging from apathetic to violently disruptive.

Students receive an individualized occupationally oriented program of instruction in out-of-school centers. This interdisciplinary instruction is combined with actual work experience and/or occupational training. Emphasis is concentrated on the basic skills of communication, computation, citizenship, scientific awareness, occupational orientation, and career preparation. Every effort is made to assess the students' needs and provide encouragement and assistance sufficient to ensure success in continuing a career oriented educational program. Progress is continuous so that each student can proceed as slowly as he needs or as rapidly as he is able. Occupational guidance and intensive personal counseling helps students better understand themselves and make more realistic career choices.

Housing Renovation Technology

Rochester City School District
13 Fitzhugh Street
Rochester, New York 14614

This program served 155 students in a housing renovation technology program and 67 students in a work experience program during the 1973-74 school year. These students were male and female 16-21 year old non-high school graduates (high school dropouts or potential dropouts). The program aims to use the dynamic of work and/or simulated work experience to show

the high school dropout the necessity of returning to an educational setting to acquire the basic reading and mathematical tools needed for getting a job and maintaining and advancing in a job. The program is able to function through the sponsorship and cooperation of industry and education--Rochester Jobs, Inc. and the Rochester City School District.

A local industry granted a leave of absence to four tradesmen during the year, allowing them to serve as housing renovation instructors for the program. The combination of the housing renovation instructors and the academic classroom teachers tends to develop within the student working capabilities--both attitudes and skills that enable him to begin or expand career possibilities in the working world. On-the-job housing renovation training is reinforced in the classroom and classroom academic work is reinforced on the work sites.

Students are referred to the program from Rochester Jobs, Inc., parole and probation officers, New York State Urban Homes (New York State Division for Youth), settlement houses, social welfare agencies, schools, other program participants, New York State Employment Service, YMCA and YWCA, FIGHT, and Rochester Housing Authority, as well as other community agencies. Forty-two percent of the students enrolled are from minority population groups. They have a 70 percent attendance average in the program. Based upon past research on a comparable group of students this represents an increase of about 100 percent when compared to their attendance at the last school attended.

Grape Farming Project for Handicapped Students

Chautauqua County BOCES
P. O. Box 250
Fredonia, New York 14063

A 5-year agreement was reached with a local owner to work 15 acres of grapes as an educational experience for handicapped students over a 5-year period. Chautauqua County ranks as one of the leading grape producing areas in the State, and as a result, local grape farmers have indicated a need for help trained in the grape production occupations. This project allows handicapped students to receive training in the various skill areas associated with grape farming by actually managing a 15 acre grape farm. Each student, depending on his or her abilities, tying, pulling brush, post setting, wire stretching, cultivating, etc., through harvesting. Aside from undergoing a unique experience, the students develop skills in a shortage area and thus become employable.

Approximately 40 students took active part in this project in the past year. Handicapped students worked with the regular occupational students in the bookkeeping aspects of the project; students in the agricultural mechanics course aided them in the utilization of farm equipment and worked with the handicapped in the vineyard, instructing them in the operation and safety aspects. Area farmers loaned equipment; personnel from the Cornell Grape Experimental Station and the Kraft Food Company provided advice and aided

in the training of the students. The project demonstrated how community resource people, administrators, teachers, and pupils can work together to provide a valuable program to meet student and community needs.

Work Experience for Handicapped

Steuben-Allegany BOCES
P. O. Box 831
Bath, New York 14810

The unique feature of this program, serving 90 physically handicapped and educable mentally retarded secondary youth, is community involvement in all phases of training. In addition to receiving classroom training, first year students join supervised "crews" and perform such work as painting, household cleaning, and yard work for private individuals and nonprofit organizations. Small donations received from the jobs in private homes go into the recreation fund, which is used to provide a "recreation day" every 6 to 8 weeks. This leisure activity is especially important, since these students rarely join sports programs or clubs in their home schools. In the second phase, students made out job applications, go through actual interviews, and take part-time jobs. In the third phase, the students work in training stations within the community. Students spend 10 weeks in each job situation and are paid for their work. The second and third phases of the program are supervised by a work experience coordinator.

Prevocational Orientation Program

Syracuse City School District
409 West Genesee Street
Syracuse, New York 13202

This prevocational program was designed to serve a target population of 200 potential dropouts from nine junior high schools. The Syracuse schools and the Upstate Medical Center cooperated in bringing these students into closer contact with the "world of work" before they were required to make definite career choices. Guidance personnel at each junior high school selected the students to be enrolled in a 2-week half-day program at the hospital. The students were tested to determine their occupational preferences and potential.

Each day the participants visited a different work setting for the purpose of observing employees functioning in a variety of jobs, including technicians, secretaries, nurses, electricians, masons, and librarians. The students were able to discuss a variety of topics with the workers such as job assignments, work satisfaction, salary, and education requirements. Group sessions were held in which the students exchanged observations and discussed attitudes, goals, and methods used to cope with job or school related situations. Role playing was used to demonstrate acceptable behavior during interviews and on the job. Group and individual counseling were also provided to all participants.

Satellite Academies Program

New York City Board of Education
110 Livingston Street
Brooklyn, New York 11201

The Satellite Academies Program trained 550 disadvantaged students for positions in health and office occupations. The academies were situated in rented buildings adjacent to student work sites. The close proximity of work and school sites enabled the companies and academies to coordinate counseling and training for students.

The program participants were able to earn credits sufficient for a high school diploma. Those in clerical training worked for major private companies in banking, stock exchange, insurance, and communications. The health career students were trained for positions such as laboratory technician, medical recordkeeping technician, inhalation therapist technician, and X-ray technician.

Students first received pre-job training, including a 7-week summer session in skill training and assessment followed by work related orientation. Students then worked full-time on alternate weeks and received advanced occupational training using company resources. Analysis of this work experience was conducted in academy discussion sessions. During the other weeks the students attended academy classes up to 3 hours a day to receive instruction in job related English and mathematics and occupational subjects. These classes were conducted in learning laboratories, which utilized programmed instruction supplemented by individualized teacher assistance.

After School Skills Program

New York City Board of Education
110 Livingston Street
Brooklyn, New York 11201

This program was designed to seek out disadvantaged students from feeder schools and provide them with entry-level summer and full-time jobs in 19 trade areas including automotive, aviation, construction, drafting, electronics, food preparation, graphic arts, maritime occupations, metal trades, and personal services. Each course was broken down into small units of training, with each unit containing the skills necessary for a particular entry-level job. The students were able to progress to other units and thereby acquire advanced skills. Emphasis was placed on developing newer skills such as the use of diagnostic test equipment for automotive repair or numerical controlled machines in machine shop courses. Performance tests to determine proficiency in entry-level skills were administered to students following completion of each skill unit.

The training was conducted in 25 skill centers which were selected on the basis of accessibility to disadvantaged students throughout the city. Classes were offered late afternoons, early evenings, or on Saturdays, with scheduling flexible to accommodate students from nonprofit private schools.

POST-SECONDARY

"Taste of College" Program

Fashion Institute of Technology
227 West 27th Street
New York, New York 10001

The 1-year "Taste of College" program served 65 disadvantaged students and high school dropouts recruited through the Auxiliary Services for High Schools program of the New York City Board of Education. These students, who might otherwise have had no opportunity for exploring careers in fashion, received counseling and were then enrolled in one or more specialized fashion courses at FIT. The objectives of the program were to motivate students to complete their high school equivalency and to encourage them to pursue post-secondary education in the field of fashion. Components of the Taste of College program included special orientation sessions; provision of supplies, textbooks, and equipment; special assignments of faculty and teacher's aides; a faculty workshop; evaluation by an industrial consultant; interviews for enrollees with the college's placement counselor and the Associate Dean for Continuing Education, to plan academic and occupational futures; and an intensive studio practice course in the month of June, to conclude the program.

Thirty-three of the 65 enrollees will be continuing fashion studies in the 1974-75 academic year, either as regular full-time or part-time students, or in an extension of the "Taste of College" program. Another 13 students were placed in jobs obtained through the college's placement office.

Electrical Technology Option--Microwave Technician

Bronx Community College
120 East 184th Street
Bronx, New York 10468

This new specialized option in the Electrical Technology curriculum is designed to train students as opportunities open up for microwave technicians with companies engaged in construction of new facilities resulting from recent FTC regulations permitting microwave competition with Long Lines Routes. Microwave technicians are needed to operate and maintain the equipment used between domestic communication satellites and the ground stations located around the population centers which will receive these signals.

Strong support was expressed for the program by electronic companies in the metropolitan area engaged in construction and operation of microwave facilities. Support provided under the grant enabled the college to improve its courses in low frequency and radio frequency transmission lines, microwave frequency transmission lines, and radar and propagation.

Environmental Control Option in Civil Technology

Monroe Community College
1000 East Henrietta Road
Rochester, New York 14623

The equipment obtained under this grant is being used to establish a laboratory for a new environmental course leading to an option for students seeking employment as technicians. Laboratory renovation and provisions for furniture as well as additional equipment are being furnished by the college. Equipment utilization provides for experiments to measure flow rates in creeks, drainage culverts, sewers, and other open channels; and to investigate purification capacity of small streams and water and wastewater treatment processes.

Sophisticated chemical processes are being used to supplement traditional biological and physical processes, adding substantially to the training requirements for environmental technician. The county's Pure Water Agency has indicated that the area served by the college will require 200 technicians over the next several years as a result of the construction of four large water pollution control plants.

Developmental Skills Program

Delhi Agricultural and
Technical College
Delhi, New York 13753

The need for this program of developmental skills training grew out of the increased enrollment in recent years of students who lack much of the preparatory education necessary for suitable entry into the college's programs in health, business, and engineering technology. For example, in the fall of 1972, over 1,000 incoming students were given a standardized reading test, required to prepare a writing sample, and surveyed below the 25th percentile in reading, placing them in the lowest quarter of a college freshman class according to national norms. Twenty percent displayed serious weaknesses in writing skills, and over 30 percent were below the 30th percentile on the Brown-Holtzman Survey of Study Habits and Attitudes.

The problem of attrition due to academic failure and of extended attendance beyond the normal four semesters led the college to seek funds to establish a developmental skills center to remedy the problems resulting from inadequate preparation for post-secondary education on the part of these students. Of the technical students selected for the Skills Program, 60 percent were in the lowest quartile in reading, 71 percent gave evidence of a need for instruction in writing, and 67 percent were below the 20th percentile on the study habits survey. In addition, 50 percent of these students had high school averages below 75.

The structure of the program consists of individual and group instruction in study, reading, and writing skills with direct relevance to students' technical courses. Topics of instruction in the study skills are determined jointly by the occupational instructors and skills center instructors and include notetaking, outlining subject matter, study-type reading skills, preparation for examinations, and report writing.

Development and Preservation of an Outdoor Instructional Facility

Farmingdale Agricultural and
Technical College
Farmingdale, New York 13408

The expansion of the college campus, including parking areas and new buildings encroached upon and in several instances resulted in the destruction of plant materials and wooded natural areas where meaningful outdoor laboratories and field studies were conducted as part of the college's agricultural program. Increased urbanization of the area surrounding the campus resulted also in instances of vandalism and unauthorized use of the land, making it unsuited to instructional purposes. This project enabled the college to close off its last remaining agricultural land and to rehabilitate it in order that it might regain its importance as an agricultural laboratory for use by students. As a result of this project, the land, which is now protected by a surrounding fence, consists of a "pest patch" with a lawn area and several varieties of plants which are used for the study of plant diseases. In addition, there is now a poisonous plant patch for identification purposes, an aboretum of woody plants and shrubs, nature trails featuring plant types, plant pests, insectivorous plants, termite and ant colonies, natural mosquito breeding areas, small animals, birds, beneficial insects, and various ecological environments.

ADULT

Color Television and Communications Techniques

New York City Board of Education
110 Livingston Street
Brooklyn, New York 11201

A program in color television techniques was initiated to replace training on the use of outmoded black and white equipment. Specific objectives of the program were to prepare students to obtain a First Class Federal Communications Commission license, and to provide practical experience on the journeyman's level for television-radio studio work in the two-way communications field.

The program, designed to serve 56 adults, was conducted the entire year, 2 evenings per week for a 2-hour period. Students spent 3 months completing classroom and studio lessons, and then were assigned to local television stations and other media areas for practical work experience. Instruction focused on the operation and maintenance of color television cameras, studio lighting, video tapes, audio monitoring equipment, and mobile two-way radios. Surveys have indicated that entry level and promotional employment opportunities exist at both television and radio stations, electric companies, teleprompter and cable television organizations, the Transit Authority, and other communication companies in the New York City area. Prior to program completion, graduates were being requested at many of the above locations.

Bilingual Adult Occupational Education Program

City of Rochester
13 Fitzhugh Street
Rochester, New York 14614

This new program, in the developmental stages, is being designed to serve Spanish-surnamed American out-of-school youth and adults in the Rochester community. The concepts of the program are to employ full-time bilingual instructors to provide occupational education instruction during the evening hours, develop appropriate curriculum materials, maintain employment contacts for placement of graduates, and implement follow-up procedures.

During the initial stages, surveys were taken to identify specifically those disadvantaged adults who were interested in enrolling in a bilingual occupational education program for job preparation, advancement, and apprenticeship training. Additionally, appropriate instructional fields for disadvantaged adults were determined so that the interests of this target group would be met. Finally, through the developmental phase, staffing needs and facilities to be utilized were identified for the

program's implementation. Consultation with educators already involved in bilingual occupational education programs helped to establish instructional techniques. A task force of community representatives was formed to provide the necessary input on the population to be served, types of programs to be offered, industry-business cooperation, and continued program development.

Tenement Housing Management and Maintenance Training

Bronx Community College
120 East 184th Street
Bronx, New York 10020

This new adult disadvantaged program trained and counseled urban residents in the management and maintenance of housing, in preparation for employment with the local housing authority. In recognition that many of the area's health problems result directly from the steady decline in the quantity and quality of housing, the Dr. Martin Luther King Jr. Health Center, in cooperation with the continuing education division of the college, conducted an indepth study of the problem. Recommendations growing out of the study conducted in 1971 included the creation of a nonprofit community housing development corporation.

In accordance with the study's recommendation, the Bathgate Community Housing Development Corporation was created, and assumed almost immediately the role of de facto landlord of a $200,000,000 housing block under the receivership program sponsored by the New York City Housing Development Administration.

An immediate objective of the local Bathgate Community Housing Development Corporation was the creation of jobs for unemployed and disadvantaged males in the community to train them in management and housing rehabilitation skills which could be put to use in restoring the units acquired by the corporation. This project was funded to enable the Health Center in conjunction with the college to recruit and train 30 persons in these skills.

The program was conceived initially as a pilot effort with implications beyond the limited population served by the two agencies engaged in this project. As inner-city housing continues to deteriorate at a rapid pace, as present property owners find the costs of managing and maintaining urban property to be prohibitive, and as more and more areas of urban housing are abandoned by nonresident landlords, the training in housing management and maintenance needed by local residents will increasingly be a shared responsibility of local educational institutions and community organizations.

Aquatic Ecology

Buffalo City School District
712 City Hall
Buffalo, New York 14202

A program in aquatic ecology was started to train adults for careers as technicians or professionals in environmental studies, ecological sciences, pollution control and measurement, marine biology, water resources, and conservation.

Prior to program development, discussions were held with guidance personnel and teaching staff from area colleges as well as persons from the Erie County Department of Health. The results indicated an annual need for trained personnel in municipal water treatment plants and local industries involved in identifying sources of pollutants and levels of toxicity in the area's water systems.

Instruction was provided in basic ecological theories and their application to water resources in the Buffalo area; determination and identification of marine habitats; and identification and measurement of pollutants, both industrial and domestic, and their effects on the aquatic ecosystems.

Adults were informed of the availability of this new program through school brochures, publications, and the local advertising media. Additionally, employed government workers were appraised of the program offering.

Work-Related Instruction for Disadvantaged Adults

St. Lawrence BOCES
13 Main Street, P. O. Box 231
Canton, New York 13617

This pilot program was intended to serve low income out-of-school youth and adults in need of job-related instruction in order to raise their employability potential. The program provided learning activities which assist students in functioning well with employers and fellow employees; completing forms such as job applications, time sheets, and tax returns; and becoming familiar with labor laws, social security benefits, and job interview situations. Simultaneously, adults were enrolled in various skill training programs in the area.

The instructional content was composed of 60 specific lesson topics covering all aspects of self-motivation, work relationships, and employee benefits. Through evaluation it has been determined that the program in many instances motivated students to search for employment. In some cases a student's employment potential was increased through basic remedial education.